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Cultural Competence in Early Intervention Services:
Programmatic Adaptations in Response to Cultural Diversity

by

Dina M. Gerwing ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Education

Department of Educational Psychology

Edmonton, Alberta

Fall 1995

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Dr. D. A. Baine

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Lorene Everett Turner

Dr. L. M. Everett-Turner

September 26, 1995

Dedication

To Murray, my beloved, for all his support and encouragement,

To Nathanael James, who has been an intimate part of the whole thesis process,

To David Baine, for being a most thorough and helpful supervisor,

and to my Lord, Jesus,

may this work bring Him glory, and benefit to others.

Abstract

A comprehensive survey study of the early intervention programs and staff in an Albertan city was conducted to investigate the relationship between the cultural composition of the children and families served, and the cultural competence of services provided. Secondary areas of investigation included the effects on the number and type of cultural adaptations made of program type, staff characteristics, and the culturally diverse families' level of acculturation. Results indicated that certain characteristics of the culturally diverse families (recent immigration, linguistic diversity, and diverse basic beliefs and practices), staff characteristics (same cultural background as the culturally diverse children served, cross-cultural experience or involvement, and training to increase their awareness of the values, beliefs and practices of other cultures), as well as program type, each had an effect on the number and types of programmatic adaptations made. Recommendations for the field of early intervention and further research were also provided.

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CHAPTER 1. INTRODUCTION

Multiculturalism is a valuable tenet of Canadian society and a valid response to Canada's growing ethnic population. In 1867, only 8% of Canada's population was neither British nor French. By 1986, the percentage of Canadians of non-British and non-French heritage rose to 37.5%, reflecting Canada's growing ethnic population (Elliott and Fleras, 1992). The cultural mosaic of Canada, while offering numerous benefits, can pose difficulties for people providing services to persons of diverse cultural backgrounds. These difficulties are especially apparent in the field of early intervention, where professionals provide services to young children with disabilities and their families. Chan (1990) stated that early intervention services must respond to "a dramatically increasing population of culturally diverse infants and toddlers with disabilities" (p.78). One way of responding to this need is through family-focused intervention, which includes the parents as important members of the intervention team, and requires interventionists to respect and honor the values, goals and wishes parents have for their children (Hanson, Lynch & Wayman, 1990). However, the requirements of family-focused intervention may be more difficult to fulfill if the interventionist and the family come from differing cultural perspectives. There is potential for differences in a number of areas relevant to early intervention, including behavioral expectations for young children, the perceived role of the professional, and even attitudes toward disability and change. These differences need to be recognized and respected by the interventionist and reconciled where possible. Interventionists have a challenging role to play in providing services to culturally diverse families: interpreting the mainstream culture, learning about family practices in the areas of health care and childrearing, and designing intervention to match family's preferences (Hanson, 1992). Hanson (1992) averred that as our society becomes more heterogeneous, the need for cross-cultural effectiveness in the field of early intervention increases. There is, therefore, a need for early intervention services to match the needs of culturally diverse families they serve.

Terminology

In order to investigate the area of cultural diversity in early intervention, it is necessary to define a number of relevant terms. Culture can be thought of as "a complex and dynamic organization of meaning, knowledge, artifacts and symbols that guide behavior, account for shared patterns of thought and action, and contribute to social and physical survival...the lifestyle of a group of people who tacitly acknowledge differences from others in terms of beliefs, values, world view and attitudes about what is right, good, and important" (Elliott & Fleras, 1992, p, 330). A related term often used in the literature is cultural diversity. Defining what is meant by culturally diverse children or families is challenging. Even though families may come from different cultural backgrounds, their beliefs, values, and practices may be more similar to those of the mainstream culture, than to those of their culture of origin. The extent of influence of the culture of origin is mitigated by such factors as socioeconomic status, length of residence in the country, whether the family lives in a rural or urban area, age and gender, type of education received, and the family's resource and support systems (Hanson, 1992). For instance, a family of German heritage may have views that more closely correlate with the mainstream culture than to traditional German culture because the family has been in Canada for three generations, and no longer speaks German at home. Would this family be considered culturally diverse?

Hallahan and Kauffman (1991) used the terms macroculture and microculture to explain the concept of cultural diversity. A macroculture is the national or shared culture. Microcultures are smaller cultures that share some common characteristics with the macroculture, but also possess unique characteristics such as values, frames of reference, as well as languages and communication styles. Some microcultures that are significant in the field of special education are ethnic and exceptionality groups (Hallahan and Kauffman, 1991). Thus, the ethnic microcultures would be considered culturally diverse. Still, it is difficult to determine how much of a difference from the mainstream culture there needs to be to be considered culturally diverse. For the purposes of this study, the macroculture of Alberta will be regarded as anglo-European in terms of values, traditions, beliefs and language. Culturally diverse families are those whose values, beliefs, and practices differ markedly from those of the mainstream. Culturally diverse families are most likely to be recent immigrants, refugees, or families that have moved from a non-anglo-European culture, such as those cultures found in Asian, South American, African or Middle Eastern countries.

Some authors have used the term ethnic competence (e.g., Green, 1982, Hanson, Lynch & Wayman, 1990) to describe program practices that are responsive to the cultural diversity of the clients served. Ethnic competence has been defined as the ability "to conduct one's professional work in a way that is congruent with the behavior and expectations that members of a distinctive culture recognize as appropriate among themselves" (Green, 1982, p.52). According to Green (1982), ethnic competence includes five factors: a) awareness of one's own cultural perspective; b) openness to other cultural perspectives and acceptance of cultural differences; c) learning from cross-cultural interactions; d) utilizing the cultural resources of the client; and e) acknowledging the integrity and value of other cultures. Hanson and others (1990), in reference to ethnic competence, recommended that early intervention should meet the special needs of the child in a manner that corresponds to the ethnic, cultural and language background of the family. Related to ethnic competence is the term ethnic sensitivity which involves three dimensions of service delivery: a) proper attitudes, b) knowledge of cultural differences and c) cross-cultural skills; ethnic sensitivity is considered a component of culturally sensitive practice (Stevenson, Cheung & Leung, 1992).

Cultural sensitivity is another term used often in the literature. Anderson (1989) stated that cultural sensitivity involves a knowledge of possible cross-cultural differences, and at least a respect for those differences. Cultural sensitivity is knowledge that cultural differences and similarities exist, without assigning a value judgment. Cultural sensitivity does not require "knowing everything there is to know about every culture represented in a population to be served" (Anderson & Fenichel, 1989, p. 10). Lieberman (1989) also referred to cultural sensitivity as "a special case of interpersonal sensitivity" (p. 197) requiring an interventionist to be sensitive to personal idiosyncrasies, and to keep an open and inquiring attitude about the preconceptions and values of others, while putting aside one's own values and preconceptions. Similarly, cultural competence has been described as the "knowledge of the impact that culture has had on our values and reactions as we work with families" (Vincent, 1992, p. 172). A culturally competent, early intervention program is one that honors and respects the beliefs, attitudes, behaviors and interpersonal styles of both culturally diverse families and multicultural staff members (Roberts, Barclay-McLaughlin, Cleveland, Colston, Malach, Mulvey, Rodriguez, Thomas, & Yonemitsu, 1990a).

Cross-cultural competence is a related term, and involves 3 major areas or dimensions (Lynch, 1992a). The three areas are a) self-awareness, b) knowledge of specific cultures, and c) cross-cultural communication. Moreover, Lynch mentions that there are three goals for cross-cultural competence: a) to feel comfortable and effective in interactions with culturally diverse families, b) to interact in ways so that the family feels positive about the interactions and the interventionist, and c) to accomplish the goals that the family and interventionist have established.

In summary, there have been many similar terms to describe practice that is responsive to the needs of culturally diverse families. Most of the terms involve an awareness of one's own culture, knowledge of the practices and values of other cultures, as well as an attitudinal component of respect for cultural differences. However, awareness, and acknowledgment of cultural differences are not sufficient to produce linguistically and culturally appropriate services (Chan, 1990). To be appropriate for culturally diverse families, there is also a need for adaptations to the services themselves. Roberts et al., (1990a) chose to use the term culturally competent rather than any of the related terms, because competence implies more than attitudes, beliefs and tolerance, but also entails the skills necessary to translate beliefs and attitudes into behavior and action when interacting with culturally diverse families and children. This study will also use the term culturally competent to refer not to an attitude or an awareness on the part of the professional, but specifically to the programmatic adaptations that take into account the cultural differences of children and their families, and that address any special needs resulting from those differences.

The purpose of this study was to determine if early intervention programs in the Edmonton area adapt the services they provide to meet the needs of the culturally diverse children and families served. More specifically the study will answer the question, "Is there a relationship between the population served, as perceived and described by an early intervention professional, and the programmatic adaptations made?" The data was collected by a survey of early intervention programs in the Edmonton area. This is a critical area to investigate since many ethnic groups are chronically under-served, and because of a lack of knowledge and interest in being culturally competent on the part of early intervention services (Roberts et al., 1990a). This study is also important because of the cultural heterogeneity of Alberta and the necessity to provide family-focused intervention to culturally diverse infants and preschoolers with special needs, and to their families. Vincent (1992) challenged the field of early intervention to put aside many of its professional concerns to find out what types of services families actually want, and to provide family-centred services that are linguistically, experientially and culturally sensitive. This study was designed to determine if these adaptations are taking place in early intervention programs in the Edmonton area.

CHAPTER 2. LITERATURE REVIEW

Culturally competent early intervention involves adaptations in a number of areas including instruction and programming, assessment, staffing, outreach and program policy. The adaptations also involve considerations for increasing family involvement, identifying areas of potential dissonance with culturally diverse families, as well as determining the family's level of acculturation. These areas and considerations have been mentioned by numerous authors.

Instruction

Culturally competent instruction or programming takes into account the cultural differences of students and addresses any special needs resulting from those differences. Culturally competent instruction is synonymous with multicultural education, as described by Hallahan and Kauffman (1991), which entails "students (being) instructed in ways that do not penalize them because of their cultural differences and that, in fact, capitalize on their cultural heritage" (p. 70). Culturally competent instruction addresses a number of factors, including maintaining continuity between school and home environments. Home environments of culturally diverse children are often different in a number of ways from school environments, requiring children to become proficient in determining the environmental demands of two distinct settings. A culturally competent program attempts to establish continuity between the school and home environment, to increase the generalization of acquired behaviors (Au & Mason, 1983; Barrera, 1993).

Similarly, to promote continuity between home and school environments, a culturally competent program will use instructional materials that are familiar to the learner; as well aspects of homes and communities should be incorporated into program activities. For example, Barrera (1993) suggested that classroom materials should portray fully and accurately the cultural, linguistic, and other types of diversities present among the students. Books in different languages, pictures of children from various ethnic groups, and guest speakers from different cultural communities could be included in the classroom. The use of culturally responsive, non-biased materials may also promote the acceptance of cultural differences (Barrera, 1993). Another way of promoting acceptance, appreciation and respect for cultural differences is for teachers to recognize both differences and similarities in behavior influenced by culture, such as amount of eye contact, ways of dressing, and types of foods eaten, and bringing these similarities and differences to the attention of students. Since children from diverse linguistic or cultural backgrounds may experience different expectations for their behavior in the home and school environments, it is therefore, important that culturally different behavior be accepted and respected in the classroom (Barrera, 1993).

Related to behavioral expectations is the area of performance stress. A program providing culturally competent instruction should consider that children who are linguistically or culturally different may experience a large amount of stress when required to perform in a school setting where the language and expectations are unfamiliar (Barrera, 1993). Barrera (1993) suggested numerous strategies that teachers can implement to reduce the stress culturally diverse students experience, and allow students to learn unfamiliar behaviors gradually: a) modeling behavior, b) providing children with time to observe desired behavior before it is required, c) involving familiar adults in the intervention, d) giving students more one-on-one instruction, e) having students work in teams or partners, f) and for the teacher to readjust his or her expectations regarding the degree of independence required by the student.

An additional factor that should be addressed by culturally competent instruction is the language used for instruction. Instruction of children should be in an appropriate language, for instance, new concepts and skills should be introduced in the child's strongest language. There may even be a need for bilingual instruction (Barrera, 1993).

Assessment

Culturally competent early intervention should also make adaptations in the area of assessment. Assessment is the gathering of information for the purpose of making decisions. Information gathered for assessment should come from a number of sources, especially children's families. Thus, early intervention programs should involve families in the assessment process, taking into account that information from questionnaires or interviews should be interpreted according to the family's cultural perspective (Santos de Barona & Barona, 1991). In addition, the families should be able to include in the assessment process, people they think are important in their children's lives, such as extended family members and godparents (Roberts, Barclay-McLaughlin, Cleveland, Colston, Malach, Mulvey, Rodriguez, Thomas, & Yonemitsu, 1990b). Moreover, the results of assessment may lack validity when used with children from diverse cultural and linguistic backgrounds. This lack of validity may result from the psychometric characteristics of the assessment instrument, such as the cultural or linguistic group the test has been designed for, the norm sample used to develop the test, and the accuracy and equivalency of test translations (Edmunds, Martinson, & Goldberg, 1990; Roberts et al., 1990a). Hallahan and Kauffman (1991) raised a number of criticisms regarding standardized tests: standardized tests do not take cultural diversity into account, focus only on the deficits and may not provide information useful for teaching. Moreover, standardized tests draw from specific experiences that culturally diverse children may not have had, and use language that may be unfamiliar to members of ethnic groups. In addition, the use of traditional assessment scales may be problematic for culturally different children because the scales were not normed on culturally diverse populations (Santos de Barona & Barona, 1991). The assessment setting itself may also influence the validity of assessment results. For culturally diverse children and their families testing situations may be unfamiliar, an examiner's appearance and style of interaction may be foreign, as are the expectations for the child's behavior (Santos de Barona & Barona, 1991). Anderson and Fenichel (1989) have suggested that an ideal examiner is one from the family's culture, preferably a bilingual/bicultural member of the staff, or at least a trained and experienced interpreter.

A common problem in the area of assessment is the confusion of cultural differences for developmental delays. Bowman (1992) stated that the confusion between exceptionality and ethnicity has caused intervention efforts to actually lead to new risks for some children, despite good intentions. It may be that children are identified as handicapped on the basis of cultural rather than developmental differences. A culturally competent program needs to differentiate between exceptionality and ethnicity (Hallahan and Kauffman, 1991). The misidentification of children as having special needs on the basis of cultural differences can have serious consequences for later life. Lee (1989) gave an example of a three year old, Chinese boy who had been placed in a program for language-delayed children. Further assessment revealed that the boy's language difficulties were not due to a language disorder, but rather, were associated with linguistic and cultural differences. Among the reasons for an incomplete assessment, Lee cited the inappropriateness of English normed tests, the child's lack of academic and social experiences, and the unavailability of an interpreter.

One of the assumptions that leads to the confusion of behaviors that emerge as a result of cultural influences with behaviors that are symptomatic of developmental delay, is the assumption "that only one set of culturally defined behaviors are the hallmarks of developmental accomplishment" (Bowman, 1992, p. 102). Standards for one particular ethnic group should not be used to measure other ethnic groups (Dettmer, Thurston, & Dyck, 1993). For instance, individuals identified as exceptional because of lack of eye contact, presumably indicating inattention or opposition, by one ethnic group may not be considered exceptional by another (Hallahan & Kauffman, 1991). Hallahan and Kauffman (1991) added that "members of ethnic groups are more apt to be identified as disabled because their differences are not well understood or valued by others" (p. 68).

Since entry criteria for early intervention programs are often determined by the results of assessments, and thus may reflect cultural differences rather than actual developmental delays, it is important that programs' eligibility requirements are appropriate for culturally diverse children, to prevent their over- or under-representation in early intervention services. Similarly, outcome measures used should also be culturally appropriate (Heath & Levin, 1991).

Promoting Cultural Competence Among Staff

A third area in which early intervention programs can make culturally sensitive adaptations in is staffing. Staff may be more culturally competent in their practices if they are from other cultures besides the mainstream, have had relevant experience or involvement in other cultures, and can speak the languages of their client (Roberts et al., 1990a & b). In addition, a staff member should have specific training in cross-cultural effectiveness (Chan, 1990; Lynch, 1992a). This training should include the beliefs and values of other cultures (Heath and Levin, 1991), as well as promoting a self-awareness of the interventionists' own cultural values, beliefs and practices (Green, 1982; Lynch, 1992a; Roberts et al., 1990a). Lynch and her associates have suggested that interventionists examine their own cultural identity to distinguish truth from tradition. The cultural identity of interventionists may affect their values and beliefs, that may, in turn, affect how they think about intervention, how they present themselves to families, and the goals and priorities they formulate (Hanson, Lynch & Wayman, 1990; Lynch, 1992a). Dettmer et al. (1993) remarked that before teachers can promote appreciation and understanding of cultural diversity, they must first understand their own attitudes and values towards diverse cultural groups.

Early intervention programs can also promote cultural competence among their staff members in a number of ways. These programs can provide specific training in methods of interacting with people from other cultures, such as inservices on cross-cultural communication or effectiveness (Edmunds et al., 1990; Roberts et al., 1990b). Anderson and Fenichel (1989) suggested that the cross-cultural training should be developed and presented by members of diverse cultural communities. Program administration can also enhance culturally competent practices by providing incentives for staff to learn other languages or learn about other cultures (Anderson & Fenichel, 1989), and by ensuring that staff members' case-load allows them the time necessary to communicate proficiently and build trust and relationships with culturally diverse parents (Roberts et al., 1990a). Staff hiring procedures can also be adapted to promote cultural sensitivity. Including culturally diverse parents or community members in the hiring process can be beneficial, since they are aware of the characteristics required to work effectively in their cultures (Roberts et al., 1990a). These parents and community members can also be invaluable as program advisors (Edmunds et al., 1990; Roberts et al., 1990). In addition, programs should include, as members of the staff team, paraprofessionals from the cultural community (Roberts et al., 1990a), as well as bilingual/bicultural professionals (Anderson & Fenichel, 1989; Chan 1990; Edmunds, et al., 1990). Early intervention program administrators can also encourage staff to collect ethnographic information in a number of areas: a) descriptions of the families' ethnic groups, b) social organizations of the cultural communities, c) prevailing belief systems within cultural groups (e.g., values, ceremonies or symbols of importance), d) information about cultural groups' histories (both past and present), e) how members of families' cultural communities access and utilize social services, and f) information identifying the attitudes of cultural groups towards seeking assistance (Hanson et al., 1990).

The use of translators is another staff factor that program administrators can influence to better meet the needs of culturally diverse children and families. The use of bicultural/bilingual staff members is preferred over the use of translators. However, if translators are used, they should be have the following characteristics: a) proficiency in the family's dialect, b) training in the principles of interpretation and in the appropriate professional fields relevant to the intervention, c) the ability to convey subtle nuances with sensitivity and accuracy, and in confidence (Lynch, 1992a). Moreover, Lynch (1992a) cautioned against using friends and family members as interpreters because it may put them in a difficult position. For example, difficulties may arise by reversing culturally accepted gender or elder roles. Also, these interpreters may become embarrassed by the intimate nature of the content discussed, and may censor such information. In addition, interpreters should be familiar both with the families they are working with, and with early intervention practices. Other issues surrounding the proper use of translators were identified by De Gangi and her associates (De Gangi, Wietlisbach, Poisson, Stein, & Royeen, 1994). The early intervention professionals in their study mentioned that the use of translators inhibited the amount of verbal exchange that usually occurred between families and professionals during planning meetings, and that the proper use of translators was hampered by time limitations, and a lack of training on how to use translators effectively.

Outreach

Outreach is another area that early intervention programs should initiate to better meet the needs of children with special needs and their families from diverse cultural backgrounds. Outreach refers to efforts made by early intervention programs to ensure that all children and families within their jurisdiction who need services receive them.

Outreach to culturally diverse families and children is imperative because often people from culturally diverse backgrounds don't access services because of cultural reasons, or because they feel alienated when accessing services where there are no providers representative of their culture (Strickland in Edmunds et al., 1990). It is therefore necessary to draw in culturally diverse families. Chan (1990) described a number of barriers that prevent access to services and information: a) lack of informational materials in appropriate languages, b) lack of bilingual/bicultural personnel, c) lack of culturally responsive service models and d) inadequate outreach methods. Early intervention programs can overcome these barriers by providing informational materials in languages besides English, that are culturally appropriate in content, language and artwork (Anderson & Fenichel, 1989). Informational materials should also be at an appropriate reading level for their intended audiences. Outreach efforts can also be facilitated by involving culturally diverse community leaders, making them aware of the services available. This involvement is beneficial in two respects, leaders are able to refer families to the program, and a link is built with the community. Another outreach effort is public awareness campaigns directed at target cultural groups through a) public service announcements in the appropriate language on radio and TV, b) the distribution of culturally appropriate promotional videos, and c) utilization of the communities' established communication network (Anderson & Fenichel, 1989). One of the more important outreach efforts is the involvement of communities in determining what needs should be met by services (Vincent, 1992).

Policy

Program policy is another area in which early intervention programs can make adaptations to provide culturally competent services. Policies describing a program's mandate to provide service to culturally diverse children and families is perhaps the basic element in providing culturally competent services. It is important that both staff and the community be aware of this mandate (Roberts et al., 1990b). A program's commitment to serve all children should be explained in a written statement disseminated in all the appropriate languages (Anderson & Fenichel, 1989).

Family Involvement

Early intervention programs can increase or enhance the involvement of families from diverse cultures in a variety of ways. One way to increase culturally diverse families' involvement is to ensure that intervention is indeed family-focused. Family-focused intervention entails that the wishes, beliefs and values of parents should be considered and implemented (Hanson, Lynch & Wayman, 1990). Moreover, because families are an important part of the early intervention process, it is important that families understand their involvement, as well as the involvement of the rest of the intervention team, in the process. Therefore services should be provided to families in their native languages (or languages that are well understood) by bilingual/bicultural interventionists or translators, or paraprofessionals from the same culture (Vincent, 1992).

Potential Areas of Dissonance

Areas of potential dissonance between families and interventionists should also be considered by culturally competent early intervention programs. Culture may influence a number of areas that may affect early intervention, especially if the values held by the family differ from those held by interventionists. Some areas where dissonance between families and interventionists might occur relate to the meanings and causes of disabilities (Anderson, 1989; Anderson and Fenichel, 1989; Hanson, 1992; Harry, 1992; Roberts et al., 1990); concepts of family structure and identity (Anderson, 1989; Anderson and Fenichel, 1989; Wayman et al., 1990); styles of interaction between parents and children, childrearing, views of children and behavioral expectations (Anderson & Fenichel, 1989; Hanson et al., 1990; Harry, 1992; Lynch, 1992a; Wayman et al., 1990); decision-making patterns (Roberts et al., 1990a); styles of communication and social interactions (Anderson, 1989; Harry, 1992; Lynch, 1992a; Roberts et al., 1990a; Wayman et al., 1990); senses of time (Dettmer et al., 1993); willingness to seek help, and preferred structures for seeking assistance (Hanson, 1992); preferred treatment for health problems (Anderson, 1989; Dunn, 1987; Hanson, 1992; Hanson et al., 1990); preferred intervention for disability, views of change and intervention (e.g., Lai & Yue, 1990; Behjati-Sabet, 1990); goals of education (Harry, 1992; Hanson, 1992); and views of professionals' roles (Anderson, 1989; Hanson, 1992). Although dissonance between interventionists and any particular family is unlikely to occur in all of these areas, it is important to know where potential differences could occur so that interventionists will not make inappropriate presumptions about the beliefs and practices of the family.

Acculturation

A family's level of acculturation can also influence their values, beliefs, and practices. Acculturation refers to the degree to which culturally diverse family members have integrated their values or modified their activities and customs to correspond with those of the mainstream culture (Hanson et al., 1990). Even though families may identify themselves with a diverse cultural group, they may still be somewhat assimilated to the mainstream culture. The extent of this assimilation and the areas in which assimilation takes place need to be assessed for individual families and children. People from diverse cultures follow the traditions of the home country to varying degrees (Anderson, Waxler-Morrison, Richardson, Herbert & Murphy, 1990). The extent to which each family has adopted the values and practices of mainstream cultures may differ depending on the particular topic or area. In addition, a family's level of acculturation may change over time or according to the situation (Green, 1982). For example, during times of stress families may revert to more traditional values and practices. Barrera (1993) suggested that insufficient attention to the acculturation process is a major concern in the field of early intervention and that the process of pulling out of the world view of the first culture can be stressful for young children, who are still formulating an initial set of behaviors and concepts from the home setting. Early interventionists need to consider the extent to which individuals identify with their home culture (Lieberman, 1989). This knowledge will enhance interventionists' interactions with families, so that rather than stereotype families according to the families' particular culture of origin, interventionists will be able to understand the individual family's values and practices, rather than making inappropriate presumptions.

In summary, there are many areas in which early interventionists can make adaptations to better meet the needs of culturally diverse children and their families. Despite the apparent importance of these areas to providing culturally competent early intervention, little research has been done to determine if these adaptations are being implemented. Most of the available literature presents the expert opinions of authors, as well as descriptions of their personal experiences. Some studies have been done to look at isolated topics with specific populations. For instance, Chan (1990) studied two projects involving Korean, Chinese and Spanish speaking families. The first was a parent/education project, using bilingual/bicultural training coordinators and parent facilitators. Chan reported that the training coordinators "demonstrated a high level of sensitivity and versatility in responding effectively to the diverse nationalities, dialects, cultural orientations, educational labels and social class background of the parents" (p. 80). This conclusion confirmed the effectiveness of bicultural/bilingual members of the intervention team. Some other outcomes of the parent/education project were greater group cohesiveness, individual changes in the parents' ability to manage their children's behavior and to teach them self-help skills. Involvement in the program also encouraged more positive parental attitudes and more effective family dynamics. How these outcomes were assessed remains unclear. The second project investigated, the Multicultural Training of Trainers project, had the goal of providing information and training to ethnic parents to assist them in interacting with professionals more effectively to meet the educational needs of their children. Chan stated that the parents received numerous benefits through their involvement: a) the positive impact of meeting parents with similar language and cultural backgrounds, and similar problems and needs; b) the opportunity to express themselves, thereby reducing feelings of guilt, shame, and stress; c) reception of information in their native language; and d) improved ability to interact with bilingual/bicultural professionals. Again, it seems that no formal measures were used to assess these outcomes. The implications formulated through studying these projects were to develop parent leadership to be responsive to the needs of culturally diverse groups and to ensure that early intervention personnel receive comprehensive multicultural training (Chan, 1990).

Lieberman (1989, 1990) described her involvement in an early intervention program with recently immigrated (less than 5 years) Latino mothers of one year old infants. The goal of the program was to improve the quality of the mother-child relationship. The program attempted to use parents' culturally relevant language to promote more responsiveness to their child's developmental and emotional needs. She found that using culturally relevant language increased the worker's level of cultural sensitivity, since they were more able share the mother's world view (Lieberman, 1989). After study of the natural support systems available in the culture, the program tried to replicate the culturally appropriate roles of *comradres*, female peers who provided emotional support, and *madrinas*, co-mothers. However, Lieberman found that this type of service delivery was inappropriate. It is important to note that again, the results of the study were not empirical, but rather, represented the author's informal observations.

Edmunds and her colleagues (1990) conducted interviews to determine what could be done to improve services to culturally diverse children with special needs. Edmunds et al. (1990) asked four early interventionists to make recommendations on how programs could better serve culturally diverse children. Some of these recommendations included developing initiatives to increase the number of culturally diverse professionals; becoming a resource for the community, even in ways not related to early intervention; involving community groups in determining services and formulating policy; raising public awareness through appropriate materials; and training service providers about various cultures. While this type of information is relevant and important for early interventionists, it is somewhat limited because of the number of interviews conducted. A larger study, with a larger population, would result in even more recommendations to provide culturally competent early intervention.

Roberts et al. (1990a) conducted an informal survey of programs, funded by the Bureau of Maternal and Child Health, that mentioned a cultural or ethnic minority in their abstracts. Through interviews with these programs the researchers found a number of aspects relating to culturally competent service delivery. The respondents identified community involvement in the program as the most important aspect of culturally competent service, especially in the areas of decision-making, program planning and hiring project staff. Roberts et al. found that the most successful projects were a) flexible regarding the program's agenda, b) sensitive to behaviors with specific meanings in particular cultures, c) took time to build trust and involve important community members, and d) recognized that meeting families' basic needs should take first priority. Roberts et al. (1990b) also formulated a self-study workbook for developing culturally competent programs for families of children with special needs. The workbook included a study guide for specific programs, asking questions in the following areas: agency description, policy, and practice (assessment, outreach, staffing, client load and training). The workbook also included a section designed for interagency or state planning bodies. Although Roberts and his colleagues did provide some useful material about culturally competent programs, the survey they conducted was informal and didn't provide empirical data. Roberts et al. (1990a & b) did, however, outline important areas or themes for further study: assessment, outreach, family involvement, staffing, use of translators, client load, professional-paraprofessional partnerships, and staff training and support.

More recently, De Gangi et al., (1994) conducted one of the few empirical studies in the area of culture and early intervention, to identify the challenges to the collaboration between families and early intervention professionals, arising from cultural diversity and socio economic status (SES). Twenty-six professionals were interviewed and responded to two case vignettes, one with a family from a diverse culture, and one with a family from a lower SES group. The results indicated that professionals considered culture and SES to be important variables affecting the process of formulating Individual Family Service Plans (IFSP). The results also showed that professionals spent more time with culturally diverse families to determine the families' customs, childrearing practices and everyday routines. The researchers also found that even though the professionals appeared sensitive to the need to elicit information from culturally diverse families to determine the impact of culture on their practices, only half of these professionals incorporated the families' values and customs into IFSP goals.

Thus, the type of research represented in the literature corresponds to the research methodology described by Harry (1992). She stated that most research investigating the influence of culture in early childhood special education is generally qualitative and descriptive in nature. There is a need , however, for a more comprehensive study in the area of culturally competent early intervention. Most of the authors have described the results of informal studies, and while some authors have evaluated what has been done within their particular programs, there has not been an evaluation of numerous programs investigating a number of areas relevant to culturally competent early intervention such as instruction, assessment, staffing, outreach, program policy, and family involvement, to determine if indeed there is a match between the services being provided and the needs of culturally diverse children and their families.

Rationale and Hypotheses

A comprehensive survey of early intervention programs, serving a number of different cultural groups would fill, at least partially, a void left in the current research. There is a need to ascertain if early intervention practice in Alberta is culturally competent, that is meeting the needs of culturally diverse children and families served. There is also a need to develop a reliable and valid measurement to assess the type and extent of program adaptations in response to cultural diversity. This study used a questionnaire, based on the issues presented in the literature, to examine the relationship between the respondent's perception of the population served and the programmatic adaptations made in response to the perceived cultural makeup of the population. In other words, the study was designed to ascertain if there was a relationship between the percentage of culturally diverse children involved in early intervention programs in an Albertan centre, and the number of culturally competent programmatic adaptations that were made. It was hoped that the questionnaire would measure the extent to which the practice of early intervention programs was responsive to the cultural diversity of children and families.

A secondary area of examination concerned the types of early intervention programs. Most early intervention programs are primarily either home-based or centre-based. Hanson, et al., (1990) have suggested that the home-based component of early intervention exposes both families and interventionists to close-up views of behaviors that are typically private, such as the home setting, eating behaviors, religious rituals, and the treatment of children and family members. Many of these private behaviors are influenced by culture. Centre-based programs do not involve as much direct interaction with families, and are not exposed to as many of the typically private behaviors. Because workers in home-based programs have more direct interaction with parents and other family members than do workers from centre-based programs, it may be hypothesized that the higher amount of interaction would require greater cultural adaptations on the part of the worker. The higher amount of direct interaction with families may also facilitate a greater level of cultural competence, as the home-based workers are exposed to the ideas, values, and practices of culturally diverse families. Therefore, another research question that can be answered in this study is "Is there a relationship between the type of early intervention program (home- or centre-based) and the amount of programmatic adaptations made?"

There are a number of factors that may affect the relationship between the programmatic adaptations made and the cultural composition of the population served. One factor is the characteristics of the program staff. As stated above, staff that are bilingual/bicultural, who have had experience in other cultures, or who have taken some training in cross-cultural effectiveness may be more likely to provide services that match the needs of culturally diverse children and families.

Another factor that can affect culturally competent early intervention practice is the location of the program. Urban areas presumably have more culturally diverse children and families, and would require services that are more culturally competent. Moreover, early intervention workers in urban areas would have greater exposure to the influences and values of diverse cultures and would presumably be more culturally competent. Similarly, rural areas are usually more culturally homogeneous, and the exposure to diverse cultures and the need for culturally competent practice may be lower than in urban areas. Alternatively, one would expect that culturally diverse families living in rural areas could be more isolated from the mainstream culture, and would be more likely to adhere to their traditional cultural beliefs (Anderson, 1989), and therefore may need more culturally competent early intervention programs.

The level of acculturation may also affect the number of programmatic adaptations necessary for a culturally competent program. While culturally competent practice is still important, it may not be as important for those families who operate well in both their culture of origin and the mainstream culture (i.e., bicultural), or who are acculturated to a large extent into the mainstream. Bicultural families may be able to use their knowledge of the mainstream culture to function effectively (Anderson, 1989).

To control for the effect of program location, only programs in urban areas were included in the population for this study. The effect of the level of acculturation of the families was more difficult to control. As stated previously, the extent of influence of the culture of origin is mitigated by numerous factors such as socioeconomic status, length of residence in the country, whether the family lives in a rural or urban area, age and gender, type of education received, and the family's resource and support systems (Hanson, 1992). A number of these characteristics would be difficult to determine via a questionnaire. One characteristic that could be determined is the recency of immigration of the child's family. Lieberman (1989) noted that the degree to which individuals identify with their own culture tends to be inversely related to their recency of immigration. Therefore, one would expect that intervention with families that are recently immigrated (e.g., less than 5 years) would require a greater degree of cultural competence than would culturally diverse families that have been living in Alberta for a longer period of time. To control for the effect of staff characteristics, descriptions of the staff involved were included in the questionnaire and treated as an independent variable. Comprehensive investigation of these areas: staff characteristics, program location and the influence of acculturation, was beyond the scope of the study. These areas would be worthy of further research in other studies.

In brief, the independent variables in this study were the composition of the programs' clientele (number and type of culturally diverse children and families), the characteristics of the staff team, and the type of early intervention program (home or centre-based). The dependent variable was the amount of culturally competent programmatic adaptations made. The family's level of acculturation, as measured by the length of residence was treated as a moderator variable.

CHAPTER 3. METHODS

Design and Procedures

A descriptive survey study was conducted to examine the relationships between the cultural background of the children and families served, the characteristics of the staff team, the type of early intervention programs, and the culturally competent programmatic adaptations made.

Instrument

Due to the lack of survey studies conducted in this area, a questionnaire that probed areas important to culturally competent practice, as supported by the literature, was developed (See Appendix A). These culturally relevant areas can be divided into two categories. The first category, program characteristics, includes: a) culturally competent instruction or programming, b) assessment, c) staff team characteristics and program facilitation of cultural competence, d) outreach efforts, and e) policy. The second category is considerations for involvement with culturally diverse families: a) ways to increase family involvement, b) areas of potential dissonance relevant to early intervention, and c) the family's level of acculturation. The questionnaire also requested information about the type of program, the number of children involved, the cultural background of the families and their length of residence in Canada. In addition, a few open-ended questions were included, so that respondents could comment on their interactions with culturally diverse families. Two forms of the questionnaire were produced: one form for the Program Directors, which included all of the above areas, and a shorter form for early intervention staff, which excluded the sections on staff team characteristics, outreach efforts and policy.

Once the questionnaire was developed, a small pilot study was conducted, to ensure that the questions were easily understandable and relevant to the issues being examined. During the pilot study two programs completed the questionnaire and were asked to comment on its content. One of these programs served a large number of culturally diverse children. Revisions were made to the questionnaire, based on the results and feedback obtained in the pilot study.

Participants

The questionnaire was distributed to early intervention programs in the Edmonton area. Program Directors were contacted by phone to inform them of the study and to request their participation and the participation of their staff. Thirty-five programs serving young children with special needs were surveyed. The sample was a convenience sample in terms of the locations chosen, although each appropriate program in the Edmonton area received the questionnaire.

Procedures for Data Collection

The researcher, in-person, delivered a packet containing the questionnaire, and a letter explaining the purpose of the research and the voluntary and confidential nature of participation in the project. The researcher asked that the Program Director and staff members complete the questionnaires, if they chose to participate, and arranged a time, approximately one week later, to pick up the completed questionnaires.

Participants who completed the questionnaire were offered a handbook outlining recommendations for culturally competent practices, as well as a list of references relevant to meeting the needs of culturally diverse children and their families.

Ethical Considerations

The nature and purpose of the research were described in a letter in the introductory packet. This letter also contained contact numbers for the researcher and the thesis supervisor in case the participant had questions or concerns needing attention. A written consent form, outlining the participants right to withdraw at any point was also included in the packet, attached to the front of the questionnaire. The procedures for withdrawing from the study were stated on the consent form. The information obtained from the questionnaires was kept confidential. In the reporting of the results, names and locations of programs, as well as all identifying characteristics were deleted.

Data Processing and Analyses

The responses to the questionnaire items were scored in two ways. The Likert type scale, measuring the frequency of implementation of cultural adaptations, was scored as follows so that no value was attributed to responses of Never or Don't know/Not applicable: Never or Don't know/Not applicable = 0, 2=1, Occasionally = 2, 4 =3, and Usually = 4. Similarly, for the Yes/No response format, Yes was scored as 1, and No was scored as 0. The open-ended comments for the section on acculturation were assigned a code by the researcher.

Results from the questionnaire were analyzed to determine the type and frequency of the programmatic adaptations made. Frequencies for each of the items were tabulated, and total scores were compiled for each section of the questionnaire (assessment, instruction, program facilitation of cultural competence, policy, outreach, family involvement, consideration of cultural differences, and potential cultural differences in perspective). A total Index of Adaptation Score was also calculated for each program and staff, by adding together the total scores for each of the above sections, with the exception of potential cultural differences in perspective. The total Index of Adaptation Scores were converted to total Index of Adaptation Percentage Scores so that scores from the two forms of the questionnaire would be comparable. In addition the following percentages were calculated: a) of culturally diverse children in each program or part of each classroom or caseload, b) of culturally diverse children whose families had been in Canada less than five years, c) of culturally diverse children whose families usually spoke a language other than English, and d) of culturally diverse children from families who had basic beliefs and practices different from those of mainstream Canadian culture. Similarly, the percentages of staff in the following categories were calculated: a) were from the same cultural or linguistic groups as the culturally diverse children being served, b) had experience/involvement in other cultures, c) spoke languages other than English, d) had training in cross-cultural effectiveness to increase their awareness of their own cultural values, beliefs, and practices, and e) had training to increase their awareness of the values, beliefs and practices of other cultures.

Correlation coefficients were calculated to determine if there were relationships between programmatic adaptations made in each of the areas surveyed, as well as the total Index of Adaptation Percentage Scores and a) the percentage of culturally diverse children in each of the above categories and b) the percentage of staff in each of the above categories. One way analyses of variance (ANOVAs) were also conducted to determine if there were significant differences between groups, based on the percentage of culturally diverse children in each of the above areas per program or classroom/caseload, in the total scores on each of the sections of the questionnaire and in the total Index of Adaptation Percentage Scores. ANOVAs were also conducted to determine group differences in each of the areas surveyed, by the percentages of staff and program type. In addition, Student-Neuman-Keuls and Scheffé tests were used in post-hoc analyses.

Limitations

There were two main areas of limitations regarding the use of the questionnaire. One area focused on questionnaire wording. Comments from the participants revealed that a definition of mainstream Canadian culture should have been given, and that the item regarding the use of "valid and reliable assessments" could have been worded more appropriately, "assessments that have acceptable validity and reliability". The scoring of the questionnaire was the second area of limitation. The scores for each section should have been weighted so that each section contributed equally to the total Index of Adaptation Percentage scores. As it was, the section on consideration of families' perspective had the most items and contributed disproportionately to the total Index of Adaptation Percentage scores, possibly inflating the scores artificially.

Significance of the Study

It was hoped that the results from this study would describe the extent of programmatic adaptations made to serve culturally diverse children and families in early intervention programs in the Edmonton area. The results identified areas where programs provided culturally competent services, as well as areas that could be improved. The comparison between home and centre-based programs helped identify topics related to culturally competent practice that differed according to program type. Early intervention programs may apply this information to adapt their services to better meet the needs of culturally diverse children and their families.

Besides the applications described above, the results from the survey should also increase the knowledge base of culturally competent early intervention. This study delved into unexplored regions of early intervention, going past the reporting of opinions and experiences of experts, to provide a systematic and comprehensive investigation, to determine if culturally competent services were actually being delivered. Similar studies could be conducted in other regions of Canada. Moreover, the findings of this study uncovered areas where further research is needed, such as the relationship between the culturally diverse family's level of acculturation and the programmatic adaptations necessary, or the effect of staff characteristics on the provision of services that meet the needs of children and families from diverse cultural backgrounds.

Despite the numerous benefits of conducting a study of this nature, the study is not without limitations. The study is limited in size and scope, and so the results obtained will be restricted in their generalizability. The limited scope also limited the number of factors that could be investigated. Other factors that may be influential for the provision of culturally competent intervention are described above. Another limitation is that there was no way of determining if the respondent's perceptions of the population served or the programmatic adaptations made were accurate. Future research could cross-validate the participant's perceptions with those of the families involved to determine if the families were actually receiving services that were responsive to their needs.

CHAPTER 4. RESEARCH FINDINGS

Results from the questionnaires given to Directors of Early Intervention Programs

Demographic Information

A survey was conducted of organizations that provide services to infants and/or preschoolers at risk for or with special needs and their families, in Edmonton and the surrounding area. Twenty-seven organizations, representing 35 programs, were contacted for participation in the study. Four of the organizations were inappropriate because the services they provided were not educational in nature; two of the organizations provided respite care on a relief basis, while a third organization provided counseling services; the fourth organization was not suitable because the children involved were beyond preschool age.

In total 37 Directors were given questionnaires; 33 were completed (3 Program Directors did not respond, and two Directors filled out a questionnaire together), resulting in a response rate of 89.2%.

The majority of respondents were from programs based in Edmonton (n=27; 81.8%); 3 were from St. Albert (9.1%); 2 were from programs in Sherwood Park (6.1%), and 1 respondent was from Spruce Grove (3%).

The majority of respondents described their positions as Program Directors or coordinators (n=28, 87.5%). Other positions held by the respondents were occupational therapist, speech language pathologist, social worker and training facilitator (n=1 for each position mentioned, 3.1%). Six of the programs were home-based (18.2%), 14 were centre-based (42.4%), and 13 of the programs had both a home- and centre-based component (39.4%).

The majority of the programs provided services to preschoolers between the ages of 2-6 (n=15, 45.5%). Five of the programs (15.2%) were designed for infants (birth to 3 1/2 years) and 7 programs provided services to both infants and preschoolers (12.1%). In addition, a few programs worked with infants and preschoolers as well as with older children and adolescents (n=4, 12.1%); two programs worked with preschoolers and older children and adolescents (6.1%). Even though some of the programs worked with children and adolescents, the respondents were asked only to refer to those aspects of their programs involving infants or preschoolers and their families.

The respondents were asked if their programs served children with disabilities, and if so what types of disability were represented in their programs. The 33 Directors provided 75 descriptions of disability that were classified according to Winzer's (1993) categories of exceptionalities. Other categories of disability were developed to include those responses not covered under Winzer's classification, such as physical handicaps,

Table 1

Categories of Disability as Reported by Program Directors

Type of disability	Number of programs (out of 33)
Speech and language difficulties	9
Unspecified numerous disabilities	9
Intellectual disabilities	7
Developmental delays	7
Behavior disorders	6
Neurological disabilities	6
Multiple handicaps	5
Physical handicaps	5
Special health care needs	5
Motor disorders	3
Pervasive developmental disorder	3
Visual impairments	3
Learning disabilities	2
Hearing impairments	2
Sensory impairments	1
Psychotic or mental illnesses	1
No apparent disabilities	1

developmental delays, and numerous unspecified disabilities. Some programs indicated that they provided services for up to 10 different types of disability. Table 1 depicts the categories of disability and the number of respondents indicating that their programs served children with that type of disability.

It should be noted that these categories are not exclusive, and that there may be significant areas of overlap. For instance, the category developmental delays may describe children who have intellectual disabilities, neurological disabilities, or speech and language difficulties. Similarly, a child with cerebral palsy may be classified by Program Directors as having a motor disorder, an intellectual deficit , a neurological disability, and/or a speech or communication impairment.

Number of Children Involved from Diverse Cultural Backgrounds

A total of 1638 children were involved in the 30 programs that reported the number of children. The mean number of children involved in each program was 54.6; the range was from 6 to 250 children. Fifty percent of the 30 programs that reported the number of children served by their programs had 45 or more children involved.

The Program Directors also reported the number of children in their programs who had come from diverse cultural and/or linguistic backgrounds, as well as the number of these children who had come from families a) that had been in Canada less than 5 years, b) who spoke a language other than English at home, and c) whose basic beliefs and practices in the areas of education, healthcare, family structure or childrearing practices, were different from those of mainstream Canadian culture. Presumably, these characteristics would indicate a greater need for culturally competent intervention. Twenty seven of the 33 Program Directors completed the section of the questionnaire pertaining to the number of children from diverse cultural and/or linguistic backgrounds. One other Program Director gave anecdotal comments only, because of the large number of children and families involved in her program. The number of programs with culturally diverse children involved as well as the number of children in each of the above categories are described in Table 2.

As Table 2 indicates, 81.5% of programs had at least one child from an Aboriginal/First Nations background; by far the largest number of culturally diverse children fell within this category. Both the number of children from Aboriginal background, and the percentage of programs having at least one child of Aboriginal background whose family usually spoke a language other than English, or whose family had basic beliefs and practices different from mainstream Canadian was significantly lower, possibly reflecting the large number of children of Aboriginal background involved in early

Table 2

Summary of Number of Children from Diverse Cultural or Linguistic Backgrounds

Twenty-seven programs responded to this portion of the survey. Results given in terms of a) number (and percentage) of programs having **one or more** children in this cell b) total number of children involved (out of a total of 1249 children)	Total number of programs with children from this cultural background	Number of programs with children whose family had been in Canada less than 5 years	Number of programs with children whose family usually spoke a language other than English	Number of programs with children whose family had basic beliefs and practices different from those of mainstream Canadian culture
a) **East Asian** (China, Japan, Korea...)	9 programs (33.3%) 18 children	3 programs (11.1%) 3 children	7 programs (25.9%) 15 children	7 programs (25.9%) 13 children
b) **Southeast Asian** (Vietnam, Laos, Cambodia, Thailand...)	12 programs (44.6%) 21 children	6 programs (23.1%) 10 children	11 programs (40.7%) 18 children	11 programs (40.7%) 17 children
c) **South Asian** (India, Pakistan, Nepal, Bangladesh...)	5 programs (18.5%) 10 children	1 program (3.7%) 2 children	5 programs (18.5%) 8 children	5 programs (18.5%) 9 children
d) **Aboriginal/ First Nations** (Metis, Inuit, Cree ...)	22 programs (81.5%) 107 children (8.6% of children)	Not applicable	5 programs * (19.2%) 6 children	6 programs * (23%) 12 children **
e) **European** (France, Portugal, Germany, Bulgaria, Greece, Britain...)	14 programs (51.9%) 81 children ***	4 programs (14.8%) 5 children	11 programs (40.7%) 14 children	5 programs (18.5%) 8 children
f) **Middle Eastern** (Iran, Turkey, Kurdistan ...)	5 programs (18.5%) 12 children	4 programs (14.8%) 8 children	5 programs (18.5%) 12 children	5 programs (18.5%) 11 children
g) **South or Central American** (Mexico, El Salvador, Nicaragua, Chile, Argentina, ...)	9 programs (33.3%) 13 children	4 programs (14.8%) 6 children	8 programs (29.6%) 11 children	6 programs (22.2%) 9 children
h) **Caribbean** (Jamaica, Trinidad, Tobago, Barbados...)	7 programs (25.9%) 9 children	2 programs (7.4%) 2 children	2 programs (7.4%) 2 children	4 programs (14.8%) 4 children
i) **African** (Kenya, Uganda, Ghana, Chad, Zimbabwe, ...)	5 programs (18.5%) 8 children	3 programs (11.1%) 5 children	5 programs (18.5%) 7 children	4 programs (14.8%) 6 children
j) **Other** # of Programs Francophone/Quebecois 2 Mixed heritage 1 Fijian 3 Hutterite 1	6 programs (22.2%) 9 children	1 programs (3.7%) 2 children	5 programs (18.5%) 8 children	3 programs (11.1%) 5 children

*indicates that 26 Program Directors completed this cell

** Note: many of these children lived in mainstream Canadian foster homes

***Note: one program indicated 47 children, and may have associated European with white mainstream ancestry intervention, who lived in foster homes. One Director commented that "All the native children are in foster homes, so their present culture is *Canadian culture*."

A further 51.9% of programs had at least one child of European descent, though few of these children came from families that had been in Canada less than five years, or who had diverse beliefs and practices, although 40.7% of the programs have at least one child of European background whose family usually spoke a language other than English. Moreover a high percentage of programs (44.6%) had children from southeast Asian backgrounds. The other cultural backgrounds were also well represented in programs, ranging from 18.5% to 33.3% of the programs. The anecdotal comments from the one Program Director mirrored these results.

In terms of numbers of children, besides those children of Aboriginal and European cultural backgrounds, the number of children involved in early intervention programs from each type of cultural background ranged from 8 to 21. The number of children from these same backgrounds whose family usually spoke a language other than English, or whose family had basic beliefs and practices different from mainstream Canadian culture, remained quite consistent with the total number of children, whereas the number of children whose families had been in Canada less than 5 years was significantly less for each of the cultural backgrounds. This result possibly indicates that cultural beliefs and practices continue to be passed down through families, despite the length of time they have spent in Canada.

For the 26 programs that reported both the number of children involved in their programs and the number of children from culturally diverse backgrounds, the following percentages were calculated: percentage of culturally diverse children, percentage of children whose families had been in Canada less than five years,and percentage of children whose family spoke a language other than English. The average percentage of culturally diverse children in the 26 programs was 26.2%, with a range from 1.1% to 100%. Similarly, the mean percentage of children whose families had been in Canada less than five years was 3.7%, with a range from 0 to 45%. The average percentage of children involved in the programs whose family spoke a language other than English was 9.8% with a range from 0 to 45%. The percentage of children whose family's basic beliefs and practices were different from the mainstream Canadian culture was tabulated. The range of percentages was between 0 and 45% and the mean was 7.4%. Again, with over a quarter of the children involved in early intervention coming from culturally diverse backgrounds, many of whom come from families who spoke languages other than English and who had beliefs and practices that were different from mainstream Canada, it is imperative that programs make adaptations for culturally diverse children and families.

In summary, most of the early intervention programs had culturally diverse children and families involved, with over one quarter of the children involved in early intervention coming from diverse cultural backgrounds, many of whom spoke a language other than English and had beliefs and practices that diverged from those of the Canadian mainstream. Thus, there is a need for culturally competent early intervention, making adaptations to better serve these children and families.

Program Characteristics

Instruction

The percentage of responses to each of 7 questions concerning how often particular considerations were incorporated into instruction, as well as a total instruction score for each program were tabulated. When analyzed, responses to the questions were given the following values: Never, or Don't know/Not applicable=0, intermediate score=1, Occasionally=2, intermediate score=3, and Usually=4. Those programs with only a home-based component were not required to complete this portion of the survey because the questionnaire items focused on classroom settings. Six programs were home-based. Twenty-five of the 27 remaining Program Directors completed this section. The results for this section are shown in Table 3.

Approximately 40% of the 25 Program Directors indicated that the adaptations described in the 7 items in this section were made to the instruction offered by their programs at least Occasionally. A large portion (37.5%) of the Program Directors indicated that culturally different behavior was Usually accepted and respected in their programs. A further 50% of Program Directors reported that behavior that differed from the mainstream was respected and accepted Occasionally or slightly more than Occasionally. Thus it seems that early interventionists were accepting and respecting cultural differences in behavior. However, as demonstrated by the average total instruction score, which was only 10.4 out of a possible 28, other adaptations to instruction needed to be made on a more regular basis, especially in terms of providing instruction in the first language of linguistically diverse children, since only 8% of programs Usually did so, and only 20% did so Occasionally.

Besides those instructional adaptations referred to in the questionnaire, the Program Directors described additional adaptations to benefit culturally or linguistically diverse children. In one program, bilingual staff gave instruction in both English and the children's native language; as well, Aboriginal workers introduced the Cree language to children through stories and other activities. Another program used translators in the classroom to help linguistically diverse children, to educate staff on how to communicate, and to facilitate communication with parents. Some Directors commented that cultural

Table 3

Summary of Responses to Questionnaire Items on Instruction

Questionnaire Item	Response	Percent of Programs (number of programs)
1. Skills and tasks unique to the child's home environment are instructed in the classroom (e.g., sitting on cushions on the floor, eating with hands or special utensils, etc.)	Don't know/Not applicable	24.0% (6)
	Never (0)	20.0% (5)
	(1)	24.0% (6)
	Occasionally (2)	12.0% (3)
	(3)	4.0% (1)
	Usually (4)	16.0% (4)
	Number of programs responding	25
2. Materials commonly found in the home, but not in mainstream classrooms are used during instruction (e.g., ethnic artifacts, rugs for sitting, ethnic clothing in the house corner, etc.)	Don't know/Not applicable	20.0% (5)
	Never (0)	20.0% (5)
	(1)	24.0% (6)
	Occasionally (2)	24.0% (6)
	(3)	4.0% (1)
	Usually (4)	8.0% (2)
	Number of programs responding	25
3. Materials and tasks from culturally diverse communities are incorporated in the classroom (e.g., ethnic dance or music, storytelling, preparation of ethnic foods)	Don't know/Not applicable	8.3% (2)
	Never (0)	12.5% (3)
	(1)	41.7% (10)
	Occasionally (2)	20.8% (5)
	(3)	4.2% (1)
	Usually (4)	12.5% (3)
	Number of programs responding	24
4. Materials in other languages or from the cultural groups of the students, other than the mainstream, (e.g., pictures of children from other ethnic groups) are part of the classroom environment	Don't know/Not applicable	12.0% (3)
	Never (0)	20.0% (5)
	(1)	28.0% (7)
	Occasionally (2)	20.0% (5)
	(3)	8.0% (2)
	Usually (4)	12.0%(3)
	Number of programs responding	25
5. Behavior that is influenced by a child's culture, that is different from mainstream culture, is accepted and respected (e.g., amount of eye contact, ways of eating or dressing, ways of dealing with disagreements, etc.)	Don't know/Not applicable	4.2% (1)
	Never (0)	0.0% (0)
	(1)	8.3% (2)
	Occasionally (2)	8.3% (2)
	(3)	41.7% (10)
	Usually (4)	37.5% (9)
	Number of programs responding	24

Table 3 continued

Questionnaire Item	Response	Percent of Programs (number of programs)
6. Similarities and differences in children's cultural behavior are recognized and mentioned to the students	Don't know/Not applicable	25.0% (6)
	Never (0)	8.3% (2)
	(1)	20.8% (5)
	Occasionally (2)	16.7% (4)
	(3)	16.7% (4)
	Usually (4)	12.5% (3)
	Number of programs responding	24
7. Instruction is provided (at least sometimes) in the child's first language	Don't know/Not applicable	16.0% (4)
	Never (0)	48.0% (12)
	(1)	8.0% (2)
	Occasionally (2)	20.0% (5)
	(3)	0.0% (0)
	Usually (4)	8.0% (2)
	Number of programs responding	25
Total instruction score (out of 28)	Range	0-23
	Mean	10.36

Note: one program Director responded Don't know/Not applicable to all the questions resulting in a score of zero adaptations were not necessarily made to instruction because of the young age or low developmental level of the children, or because of the dearth of children from culturally diverse backgrounds in their programs. Similarly, Directors of those programs that focused specifically on language development commented that instruction was not provided in other languages besides English, due to the nature of their programs. Many Directors stated that adaptations were made as needed on an individual basis, with input from the child's family regarding expectations and preferences. In fact, a number of Directors mentioned that their programs made adaptations for the benefit of the culturally diverse parents more so than for the children, as illustrated in the following comment, "Cultural sensitivity relates more to the parents."

Assessment

This part of the questionnaire included 9 questions about assessment. Again the response format consisted of a Likert type scale indicating the frequency with which the culturally competent methods described in the questionnaire were included in the assessment process, with Never or Don't know/Not applicable scored as 0, Occasionally scored as 2, and Usually, scored as 4. Thirty-two of the 33 Program Directors completed this portion of the questionnaire. Percentages for each response were calculated and a total assessment score was tabulated for each program.

Eleven of the Program Directors indicated, in a subsequent item that their programs did not conduct formal assessments. The relatively high number of Don't know/Not applicable responses may be a reflection of this lack of formal assessments, since some of the items focused on formal assessment instruments.

As demonstrated in Table 4, the area in which the early intervention programs most often implemented adaptations to assessment that benefited culturally or linguistically diverse children was the involvement of family members (87.5% of programs Usually did so). Furthermore 90.7% of Program Directors indicated that their programs involved individuals whom the family desired to be part of the assessment process, and 61.3% used outcome measures that reflected the behaviors common in children's cultures, at least Occasionally. The other adaptations to assessment surveyed in the questionnaire were not incorporated as often. Only 22.6% of the programs Usually adapted or altered assessment for children from diverse cultural backgrounds. The item regarding the reliability and validity of instruments is especially disturbing. Only 19.3% of directors reported that their programs used instruments, at least Occasionally, that were valid and reliable for use with culturally diverse children, and the majority of Program Directors (48.4%) responded either that they didn't know if the instruments used by their programs were valid and reliable for culturally diverse children or that the item was not applicable to their

Table 4

Summary of Responses to Questionnaire Items on Assessment

Questionnaire Item	Response	Percent of Programs (number of programs)
1. Assessment involves immediate family members in the assessment process, not only the individual child	Don't know/Not applicable	6.3% (2)
	Never (0)	0.0% (0)
	(1)	0.0% (0)
	Occasionally (2)	6.3% (2)
	(3)	0.0% (0)
	Usually (4)	87.5% (28)
	Number of programs responding	32
2. Assessment involves other individuals whom the family desires to be part of the assessment process (e.g., extended family, godparents, etc.)	Don't know/Not applicable	9.4% (3)
	Never (0)	0.0% (0)
	(1)	6.3% (2)
	Occasionally (2)	15.6% (5)
	(3)	12.5% (4)
	Usually (4)	56.3% (18)
	Number of programs responding	32
3. Assessment includes indicators of development (i.e., milestones) that are characteristic of the child's culture rather than of mainstream Canadian culture (e.g., weaning and self-feeding at later ages, timing or achievement of milestones may not be as important in some cultures)	Don't know/Not applicable	12.5% (4)
	Never (0)	12.5% (4)
	(1)	12.5% (4)
	Occasionally (2)	21.9% (7)
	(3)	9.4% (3)
	Usually (4)	31.3% (10)
	Number of programs responding	32
4. Assessment instruments are designed or adapted specifically for the child's cultural or linguistic group	Don't know/Not applicable	18.8% (6)
	Never (0)	34.4% (11)
	(1)	21.9% (7)
	Occasionally (2)	9.4% (3)
	(3)	3.1% (1)
	Usually (4)	12.5% (4)
	Number of programs responding	32
5. Assessment is carried out in an environment familiar to the child and his or her family (e.g., home vs. clinician's office)	Don't know/Not applicable	12.5% (4)
	Never (0)	9.4% (3)
	(1)	9.4% (3)
	Occasionally (2)	12.5% (4)
	(3)	12.5% (4)
	Usually (4)	43.8% (14)
	Number of programs responding	32

Table 4 continued

Questionnaire Item	Response	Percent of Programs (number of programs)
6. Assessment is carried out in the language most commonly spoken in the family's home	Don't know/Not applicable	16.1% (5)
	Never (0)	6.5% (2)
	(1)	19.4% (6)
	Occasionally (2)	22.6% (7)
	(3)	9.7% (3)
	Usually (4)	25.8% (8)
	Number of programs responding	31
7. Assessment instruments used are valid and reliable for children from the child's culture	Don't know/Not applicable	48.4% (15)
	Never (0)	12.9% (4)
	(1)	19.4% (6)
	Occasionally (2)	0.0% (0)
	(3)	3.2% (1)
	Usually (4)	16.1% (5)
	Number of programs responding	31
8. Outcome measures of the child's development or progress in the program include behaviors characteristic of his/her culture (e.g., may be less emphasis on independence, and more emphasis on interdependence within the family)	Don't know/Not applicable	16.1% (5)
	Never (0)	3.2% (1)
	(1)	19.4% (6)
	Occasionally (2)	22.6% (7)
	(3)	12.9% (4)
	Usually (4)	25.8% (8)
	Number of programs responding	31
9. The assessment process is adapted or altered for children from diverse cultural backgrounds (e.g., more observation, different instruments, etc.)	Don't know/Not applicable	19.4% (6)
	Never (0)	6.5% (2)
	(1)	25.8% (8)
	Occasionally (2)	16.1% (5)
	(3)	9.7% (3)
	Usually (4)	22.6% (7)
	Number of programs responding	31
Total assessment score (out of 36) Note: two Program Directors responded Don't know/Not applicable to all the questions resulting in a score of zero. The next closest score was 11.	Range	0-36
	Mean	18.72

programs. This result may reflect the fact that 11 of the 33 programs did not conduct formal assessment, or the possibility that there is a need for further education on the proper use of assessment instruments for culturally diverse children. Thus, it seems that those adaptations that would be incorporated within a family focused approach- involving family members and individuals of the family's choosing in the assessment process, and using outcome measures characteristic of the child's/family's culture, most likely reflecting goals chosen by the family members, occur more frequently, while other adaptations that pertain to culture specifically are not incorporated as often. It seems that early intervention programs are not frequently implementing adaptations to the assessment process for culturally and/or linguistically diverse children, as illustrated by the relatively low average total assessment score of 18.7 out of 36.

Assessment instruments. The respondents were asked to a) list all the assessment instruments used by their programs. They were also asked to b) indicate which instruments were used with children from diverse cultural backgrounds. Twenty-six of the 33 Program Directors completed this portion of the questionnaire. Eleven Program Directors stated that their programs did not conduct formal assessments. Four programs used an inventory or checklist designed by their programs staff. In addition, 55 assessment instruments were mentioned by the respondents. One program listed 29 instruments. Those instruments that were mentioned by more than one program are shown Table 5. The Diagnostic Inventory for Screening Children (DISC) was the instrument used most often by the early intervention programs. Moreover, there was a preponderance of speech and language assessment instruments, which may be a reflection of the high number of programs serving children with speech and language difficulties (n=9).

The Program Directors were asked to place a star by the assessments used for children from culturally diverse backgrounds. Excluding those programs that did not complete the item or that did not use formal assessments, the responses given by the remaining 16 Program Directors were appraised. It was assumed that if there was no star placed beside an assessment instrument that the device was not used with culturally diverse children. Four programs (25%) indicated that there was no difference in the assessment instruments used with culturally diverse children. Twelve Program Directors (75%) indicated a difference, in that either none of the instruments or only selected ones were used with culturally diverse children.

The instruments that were used with culturally diverse children were as follows: Diagnostic Inventory for Screening Children (used by 3 programs); Leiter (used by 2 programs); Preschool Language Scale 3 (used by 2 programs); Test of Auditory

Table 5

Assessment Instruments Used Most Often by Early Intervention Programs

Instrument	Number of programs
Diagnostic Inventory for Screening Children	6 programs *
Peabody Picture Vocabulary Test (PPVT)	4 programs *
Expressive One Word Vocabulary Test (EOWPVT)	3 programs *
Preschool Language Assessment Instrument (PLAI)	3 programs *
Test of Auditory Comprehension of Language (TACL)	3 programs *
Achenbach Child Behavior Checklist	2 programs
Bayley Scales of Infant Development	2 programs *
Carolina Curriculum	2 programs *
Leiter	2 programs *
McCarthy Scales of Children's Abilities	2 programs
Peabody Gross Motor Scale	2 programs *
Preschool Language Scale 3	2 programs *
Receptive Expressive Emergent Language Scale 2 (REEL-2)	2 programs
Rosetti	2 programs
Stanford Binet 4th Edition	2 programs
WPPSI-R	2 programs

*denotes instruments used with culturally and/or linguistically diverse children

Comprehension of Language (used by 2 programs); Bayley Scales of Infant Development; Program of Studies (Checklist) -Special Education 1983 and Early Childhood; Carolina Curriculum for Infants and Young Children; Gross Motor Function Scale; Peabody Gross Motor Score; Peabody Picture Vocabulary Test; Expressive One Word Picture Vocabulary Test; Preschool Language Assessment Instrument; Play-based Assessment; and the American Sign Language Checklist. In addition 3 Program Directors indicated, for culturally diverse children, they used informal inventories designed by program staff.

Additional comments on assessment. The Program Directors also made a number of comments regarding additional adaptations made to the assessment process. One Director noted that assessment instruments weren't used as standardized instruments (i.e., the scores obtained were not compared to the norms given), but rather, to gain information about individual children. Many Directors commented about taking into account the parents' report of their children's abilities and recognizing the parents' priorities, feelings and expectations for their children. Most of the other comments fell into two groups. In the first group, Directors stated that their programs only conducted assessment on an informal basis. Some of the programs used informal assessments for program planning, but also utilized information from formal assessments conducted by other professionals prior to the child's placement in their programs. The second groups of comments dealt with the use of translators, or even outside agencies in assessment, when language was an issue. For example, one Director commented that her program utilized Multicultural and ESL (English as a Second Language) Staff to assist with assessment in the child/family's mother tongue and/or to advise the staff of different expectations for children from different cultures.

Program staff

Number of staff. The Program Directors were asked to report the number of program staff involved in direct service to families and children. Four Program Directors reported that all of their staff were involved in direct service. Of the remaining 29 programs, the number of staff involved in direct service ranged from 2 to 41. The average number of staff involved in direct service was 10. The total number of staff from the 29 programs was 290.

The Directors were also asked to report the number of staff who fulfilled a number of criteria, associated in the literature with culturally competent early intervention. The first criterion was that the staff belong to the same cultural or linguistic groups as the culturally diverse children being served. Five Directors indicated that the item was not applicable to their programs, possibly because there were no culturally diverse children involved; one Director did not complete this item. For the remaining 27 programs, the total number of staff from the same cultural group as the children being served was 30 and the average number of staff was 1.1, although the number of staff from diverse cultural groups ranged from 0 to 8 per program. For the majority of programs (63%), however, there were no staff from the same cultural group as the culturally diverse children being served.

The remaining criteria were indicators of cultural literacy. The Directors reported the number of their staff who had had experience or involvement in other cultures. Five Program Directors indicated that the item was not applicable; one Director indicated that *most* of the staff had had this experience, while another Director stated that *many* of the program staff had had experience or involvement in other cultures. For the remaining 24 programs, there were a total of 69 staff having had experience or involvement in other cultures. The range was from 0 to 9; the average number of staff was 2.9. The next item asked how many staff could speak a language other than English. Two of the 33 Directors did not respond to this item; one Director said it was not applicable, and one Director indicated that *some* of the staff could speak another language. The total number of staff who could speak a language besides English in the remaining 29 programs was 60, out of 290. The average number of staff in each program speaking another language was 2.1, with a range from 0 to 10.

The last two items in this section asked how many staff had training in cross-cultural effectiveness to increase awareness of cultural values, beliefs and practices, in their own and in other cultures. Three Directors failed to respond to these items. Eleven Program Directors indicated that this item was not applicable. One program Director stated that *most* of the staff in his/her program had received training in awareness of their own cultural beliefs. For the remaining 18 programs, the Directors reported that a total of 56 staff had received training to be aware of their own beliefs and practices. The average number of staff in each program who had received training in their own cultural awareness was 3.1 and the range was from 0-12 staff per program. The responses to the item pertaining to the awareness of other cultures' values, beliefs, and practices were similar. Five Directors did not respond to the item, nine stated that the item was not applicable, and 1 indicated that *most* of the program staff had received training to be aware of the values and beliefs of other cultures. There were a total of 53 staff in the remaining 18 programs who had received training in the beliefs, practices and values of other cultures. The average number of staff in each program with this type of training was 2.9, although the number of staff per program ranged from 0-12. Fifty percent of the programs (n=9) had 1 staff with cross-cultural training.

The percentage of staff fulfilling each of the foregoing criteria: a) being from same cultural group as the children being served, b) having had experience in other cultures, c) speaking a language besides English, and d) having had training in awareness of cultural beliefs and practices in their own and in other cultures, was calculated. For 25 of the programs giving both the total number of staff and the number of staff from different cultures, it was found that on average, 11.9% of the staff team was from the same diverse cultural background as the children being served. The percentage of culturally diverse staff per program ranged from 0 to 100%. The majority of programs (n=17 or 68%) had no members of their staff team from diverse cultural backgrounds. The percentage of staff who had experience or involvement in other cultures was quite a bit higher. On average, for the 23 programs giving both the total number of staff and the number of staff with cross-cultural experience, 40.3% of the staff team had had experience or involvement in another culture; the range was from 0 to 100%. Moreover, in 3 (13%) of the programs, 100% of the staff team had had cross-cultural experience or involvement.

The average percentage of staff per program who could speak a language other than English was 17.8%, calculated for 27 programs. Many of the programs had no staff team members who could speak another language (n=7, 25.9%); the percentages ranged from 0-50%. In terms of training for increased awareness in cultural beliefs, a high percentage of staff teams had training to be aware of their own cultural values, beliefs and practices. On average, 42.6% of the staff teams had training in this regard. It should be noted, however, that only 18 of the 33 programs gave both of the numbers needed to calculate the percentage. The percentage of staff with training in their own cultural awareness ranged from 0 (n=5, 27.8%) to 100% (n=5, 27.8%). The average percentage of staff teams with training to be more aware of the values, beliefs and practices of other cultures was slightly lower, 37.8%. Again this percentage was based on the responses of only 18 of the 33 Program Directors, and again the percentages ranged from 0 (n=4, 22.2%) to 100% (n=3, 16.7%).

In summary, there seems to be a discrepancy between the number of culturally diverse children involved in early intervention programs (as indicated in Table 2) and the number of staff members from culturally diverse backgrounds. However, a good portion of the early interventionists seem to be culturally literate in that many of the staff have had experiences in other cultures, speak languages other than English, and are aware of beliefs and practices of their own and other cultures. Higher percentages of staff with the above characteristics would still be more desirable.

Program facilitation of cultural competence. The next section of the questionnaire was comprised of a number of items that pertained to ways that programs could facilitate culturally competent early intervention services. The Directors were asked to report Yes or No to indicate if their programs implemented the following: a) provided staff with training in cross-cultural effectiveness of communication, b) offered staff incentives to learn other languages or about other cultures, c) hired staff who were bilingual or bicultural, d) involved members of the same cultural community as culturally diverse children in the program as paraprofessionals on the staff team or as program advisors, e) involved culturally diverse parents in the staff selection process, f) involved translators, and g) encouraged staff to collect information describing a family's cultural or linguistic group, or material on the social structure of the cultural community. Table 6 describes the responses given by the Program Directors.

Total scores for this section were also calculated with Yes receiving a score of 1, and No or Don't know/Not applicable receiving a score of 0, resulting in a total possible program facilitation of cultural competence score out of 12, for the 12 items. The total scores ranged from 0 to 10 for the 33 programs, with an average score of 5.4. This result indicates that, on average, the early intervention programs were incorporating only about half of the possible adaptations described in this section to promote cultural competence among their programs staff. One Director echoed these observations in the following comment: "We need to become more *multiculturally literate* and need to access the families in the program as resources for learning about their cultures."

In brief, as demonstrated in Table 6, the majority of early intervention programs were implementing the following adaptations in terms of staff selection, composition, and training: a) hiring staff that were bilingual/bicultural, b) encouraging staff to collect information about families' cultural or linguistic group and the social structure of cultural communities served by the program, and c) involving translators who are familiar with the families and the families' cultural groups. It would be beneficial, however, if more of these translators were familiar with early intervention practices. The areas in which programs could further promote culturally competent practice were in a) providing staff with cross-cultural training, b) offering incentives to learn other languages or about other cultures, and c) involving members of culturally diverse communities as paraprofessionals, as advisors, or in the selection of staff members. A number of Directors commented that because their programs was part of a larger organization, they were not involved in the hiring process.

Table 6

Summary of Responses to Items Regarding Program Facilitation of Cultural Competence

Questionnaire Item	Response	Percent of Programs (number of programs)
1. provides staff with training in how to interact with people from other cultures	Yes	34.4% (11)
	No	65.6% (21)
	Number of programs responding	32
2. offers staff incentives to learn another language or about other cultures	Yes	25% (8)
	No	75% (24)
	Number of programs responding	32
3. hires staff that are bilingual or bicultural	Yes	75% (21)
	No	21.4% (6)
	Don't know/Not applicable	3.6% (1)
	Number of programs responding	28
4. involves members of the same cultural community as culturally diverse children in the program as paraprofessionals on the staff team	Yes	35.5% (11)
	No	64.5% (20)
	Number of programs responding	31
5. involves members of the same cultural community as culturally diverse children in the program as program advisers	Yes	38.7% (12)
	No	61.3% (19)
	Number of programs responding	31
6. involves culturally diverse parents in the staff selection process	Yes	6.5% (2)
	No	93.5% (29)
	Number of programs responding	31
7. involves translators when working with culturally diverse families	Yes	83.9% (26)
	No	16.1% (5)
	Number of programs responding	31
8. involves translators who are familiar with early intervention practices	Yes	37.0% (10)
	No	59.3% (16)
	Don't know/Not applicable	3.0% (1)
	Number of programs responding	27
9. involves translators who are familiar with the family involved	Yes	66.7% (20)
	No	30.0% (9)
	Don't know/Not applicable	3.0% (1)
	Number of programs responding	30

Table 6 continued

Questionnaire Item	Response	Percent of Programs (number of programs)
10. involves translators who are familiar with the families culture	Yes	69.7% (23)
	No	17.2% (5)
	Don't know/Not applicable	3.0% (1)
	Number of programs responding	29
11. encourages staff to collect descriptions of families' cultural or linguistic group	Yes	51.6% (16)
	No	45.2% (14)
	Don't know/Not applicable	3.2% (1)
	Number of programs responding	31
12. encourages staff to collect material on the social structure of the cultural community	Yes	61.3% (19)
	No	35.5% (11)
	Don't know/Not applicable	3.2% (1)
	Number of programs responding	31
Total facilitation of cultural competence score (out of 12)	Range	0-10
	Mean	5.42

Other adaptations currently being implemented in early intervention programs that were mentioned by the Directors are a) basing the care provided on requests from parents, thereby addressing any cultural issues individually according to each family's practices; b) learning about cultural values and belief systems from interpreters used by the program; c) providing staff with information pertaining to culturally diverse intervention methods; d) matching bilingual workers with appropriate families whenever possible; and e) making referrals to outside agencies as needed. A few programs were exceptional in making adaptations to ensure cultural competency among their staff. Two of the Program Directors mentioned that their programs were taking part in a program initiated by the United Way, entitled Multicultural Organization Change in Community Organization. One program provided professional development inservices to familiarize staff with cultural issues and formed a committee to focus on culturally diverse childrearing practices, communication styles, etc., to provide information to staff and collect resources. Another program hired all of their staff from within the community they serve. The staff, therefore, were "aware of the problems encountered by the families in the program because they have experienced and are dealing with similar issues." Similarly, another program recruited its staff from the families' own support network, involving the family in the selection process. Two extraordinary programs consulted with local Aboriginal leaders for advice and guidance on how to best work with/serve children and families.

Policy

The Program Directors responded Yes or No to three questions pertaining to program policy. The questionnaire items and pattern of responses are reported in Table 7.

Total culturally competent policy scores were also calculated. A response of Yes received a score of 1, No a score of 0, and Don't know/Not applicable also received a score of 0, resulting in a total culturally competent policy score out of 3 for the 3 items. The total scores ranged from 0 to 3 for the 32 programs completing this section, with an average score of 0.7. Twenty-one of the 32Program Directors (65.6%) responded that they had no mandate to serve culturally or linguistically diverse children in their programs' policies and thus, received a total policy score of 0. Many of the Program Directors made comments that although their policies did not specifically mandate service to culturally diverse children and families, their policies were inclusive, with a mandate to serve any and all children and families, as delineated in the following comments. "Our policy is not one of who we will include; it is one of we will not exclude anyone due to their culture" or "Children are accepted on a basis of need, not culture."

Table 7
Summary of Responses to Questionnaire Items on Policy

Questionnaire Item	Response	Percent of Programs (number of programs)
1. Does your program have written in its policy a mandate to serve culturally or linguistically diverse children and families?	Yes	27.3% (9)
	No	69.7% (23)
	Don't know/Not applicable	3.0% (1)
	Number of programs responding	33
If Yes,(of the 10 programs that did not respond No to the above item)		
2. Are staff aware of this policy?	Yes	90.0% (9)
	No	10.0% (1)
	Number of programs responding	10
3. Are members of the diverse cultural community (e.g., parents and community leaders) aware of this policy?	Yes	50.0% (5)
	No	40.0% (4)
	Don't know/Not applicable	10.0% (1)
	Number of programs responding	10
Total culturally competent policy score (out of 3)	Range	0-3
	Mean	0.72

Outreach

The Program Directors responded Yes or No to six items pertaining to their programs' efforts to include culturally or linguistically diverse families in their services. The items and responses are delineated in Table 8.

Total outreach scores were calculated out of 6, with Yes receiving a score of 1 and No or Don't know/Not applicable, a score of 0. The average score was 1.0, with a range from 0 to 4.

As Table 8 indicates, very few of the early intervention programs were conducting any type of outreach to culturally diverse populations, although several Program Directors indicated that they were making outreach efforts to inform the general public of the services provided by their programs. In addition, a few of the programs made materials available in the native language of the culturally diverse families they were likely to serve, or had materials available in another form besides written, and several programs informed culturally diverse community leaders of the services provided by their programs. Still, as the very low average total outreach score indicates, early intervention programs could do much more to promote the knowledge and use of their services among culturally diverse communities. As one Director commented, the program staff may feel open to all cultures, but their services may not be accessed by culturally diverse families because of cultural barriers erected because of a lack of understanding. Outreach efforts are imperative to promote understanding and to eliminate cultural barriers.

Considerations for Involvement with Culturally Diverse Families

This section of the questionnaire included items pertaining to direct interaction between staff and members of culturally diverse families in relation to a) the families' first language, b) consideration of cross-cultural differences, and c) differences in perspective between staff and family members.

Family's First Language

The Program Directors were asked how often their programs provided services to families in the families' first language. The response format was a Likert scale scored as Never or Don't know/Not applicable = 0, Occasionally = 2, and Usually =4. The questionnaire items and Program Directors' response patterns are summarized in Table 9.

As demonstrated in Table 9, 18 of the 25 (72.0%) programs for which the item was completed, to some extent provided services to families in their first language. Four programs (12.0%) Never provided services in the first language of culturally diverse families. Four Program Directors (16.0%) responded Don't know/Not applicable to this item.

Table 8

Summary of Responses to Questionnaire Items on Outreach

Questionnaire Item	Response	Percent of Programs (number of programs)
1. Are informational materials about your program available in the native languages of the families you are most likely to serve?	Yes	27.3% (9)
	No	72.7% (24)
	Number of programs responding	33
2. If materials are available in other languages besides English were they prepared by a native speaker of that language? (of the programs responding Yes above)	Yes	50.0% (3)
	No	33.3% (2)
	Don't know/Not applicable	16.7% (1)
	Number of programs responding	6
3. Are community leaders from different cultural or language groups informed about the early intervention services available to the members of their community?	Yes	24.1% (7)
	No	72.4% (21)
	Don't know/Not applicable	3.4% (1)
	Number of programs responding	29
4. Has your program conducted any public awareness campaigns directed at a specific cultural or language group?	Yes	6.5% (2)
	No	93.5% (29)
	Number of programs responding	31
5. Is your program planning any public awareness campaigns directed at a specific cultural or language group?	Yes	10.0% (3)
	No	90.0% (27)
	Number of programs responding	30
6. Is information about your program available in other than written form (e.g., videos, public service announcements)?	Yes	30.0% (9)
	No	70.0% (21)
	Number of programs responding	30
Total outreach score (out of 6)	Range	0-4
	Mean	1.00

Table 9

Summary of Responses to Family Involvement Items

Questionnaire Item	Response	Percent of Programs (number of programs)
1. Provides services to families in their first language	Don't know/Not applicable	16.0% (4)
	Never (0)	12.0% (3)
	(1)	28.0% (7)
	Occasionally (2)	20.0% (5)
	(3)	4.0% (1)
	Usually (4)	20.0% (5)
	Number of programs responding	25
2. via bilingual staff	Don't know/Not applicable	10.0% (3)
	Never (0)	23.3% (7)
	(1)	26.7% (8)
	Occasionally (2)	20.0% (6)
	(3)	6.7% (2)
	Usually (4)	13.3% (4)
	Number of programs responding	30
3. via a paraprofessional from the family's culture	Don't know/Not applicable	9.7% (3)
	Never (0)	32.3% (10)
	(1)	12.9% (4)
	Occasionally (2)	25.8% (8)
	(3)	9.7% (3)
	Usually (4)	9.7% (3)
	Number of programs responding	31
4. via a friend or relative of the family	Don't know/Not applicable	9.7% (3)
	Never (0)	16.1% (5)
	(1)	25.8% (8)
	Occasionally (2)	35.5% (11)
	(3)	12.9% (4)
	Usually (4)	0.0% (0)
	Number of programs responding	31
Total family involvement score (out of 16)	Range	0-13
	Mean	5.16

The Directors also indicated how often their programs used bilingual staff to provide services to families in their first language. Thirty Directors completed this item. Seven programs (23.3%) Never provided services via bilingual staff. Twenty programs (66.7%) used bilingual staff to provide services in the families first language. Three Directors (10.0%) responded Don't know/Not applicable.

Paraprofessionals, people involved in early intervention without formal training, such as members of the culturally diverse community, were used less frequently than were bilingual staff to provide services in the language of the families. Ten of the 31 (32.3%) programs Never used paraprofessionals to provide services in the families' first language. Eighteen programs (58.1%) used paraprofessionals to provide services to culturally diverse families in their first language at least Occasionally. Three Program Directors (9.7%) indicated that they Didn't know the answer, or found the item Not applicable to their programs's services.

Friends or relatives were used more often than were paraprofessionals or bilingual staff to provide services in the first language of families from diverse cultural or linguistic backgrounds. Twenty three programs (74.2%) utilized the families' friends or relatives to overcome linguistic barriers at least some of the time. Five programs (16.1%) Never provided services in the families first language through friends and relatives of the family. Three Program Directors indicated that this item was Not applicable (9.7%). One Program Director recognized the problematic issues inherent in using friends or relatives as translators: "We encourage the use of professional interpreters for the sake of the families' confidentiality as well as insuring objective interpretation." In contrast, one Director commented that, "Often, families prefer not to have an interpreter from the outside."

A total family involvement score was calculated by adding the responses for the 4 items in this section, for a total possible score of 16. The average score for the 32 programs was 5.2, with a range from 0 to 13. It should be noted, however, that in this instance, a higher score is not necessarily indicative of more culturally competent services, since the provision of services in the first language of culturally and linguistically diverse families through one of the above categories of translators (bilingual staff, paraprofessionals, friends or relatives of the family) may preclude the use of the translators in the other categories.

Cross-cultural Differences

Consideration of the families' perspective. Program Directors were asked to report how often staff members considered the perspective of culturally diverse families in a number of areas. Once again the response format was a Likert type scale, with scoring as follows Never or Don't know/Not applicable = 0, Occasionally = 2, and Usually = 4. The areas and the Program Directors' response patterns are noted in Table 10. Thirty-one of the 33 Program Directors completed this section. In addition, a total consideration of cultural differences score was calculated by adding the scores on each of the 16 items in this section, for a possible total of 64. The scores ranged from 8 to 64, with an average score of 44.6.

In general, as indicated by the results in Table 10 and the comparatively high total consideration of cultural differences score, the staff of early intervention programs often consider the perspective of family in a number of areas. In fact, Never was chosen as a response by the Program Directors in only four of the 16 items, and in all of the items at least 77.5% of the Program directors indicated that their staff considered the perspective of culturally diverse families in that area at least Occasionally. This percentage was over 90%, for a number of the items. Thus, early interventionists seem to be demonstrating a high degree of consideration for the families' perspective, probably a result of the emphasis on family focus in early intervention. It should also be noted that 19.4% (6) of Program Directors responded Don't know/Not applicable to the item pertaining to considering the families' preferred treatment for health problems, possibly because the population served by their programs does not include children with health problems.

The comments given by Program Directors illustrated their desire to consider the family's perspective. Moreover, one Director brought to light an interesting dilemma between honoring the family's expectations and the need to prepare the child for future educational environments: "I hope we are sensitive to family input re: expectations for their child. Part of our dilemma, however, is that we are trying to help that child fit successfully into a community school setting and we hope to help the child learn skills which will assist in learning within a group. That may be at odds with cultural expectations." Furthermore, the consideration shown by the staff is valued by the parents, as is illustrated in the following comment made by one of the Program Directors: "In some cultures having a child with special needs is regarded as a blemish on the family. The parents are very embarrassed that this has happened. They really appreciate the work that is done for their child and the support given to their family."

Potential cultural differences in perspective. Program Directors were also asked to report how often their perspectives or the perspectives of other staff members differed from the perspectives of culturally diverse families in the same areas. The same Likert type scale was used with scoring as follows: Never or Don't know/Not applicable = 0, Occasionally = 2, and Usually = 4. The areas of potential difference and the Program Directors' response patterns are presented in Table 11. Thirty two of the 33 Program

Table 10

Summary of Consideration of Cultural Differences

Area in which staff members consider the perspective of culturally diverse families:	Program Director Response	Percent of Programs (number of programs)
1. interpretation of what a disability is	Don't know/Not applicable	9.7% (3)
	Never (0)	9.7% (3)
	(1)	3.2% (1)
	Occasionally (2)	22.6% (7)
	(3)	22.6% (7)
	Usually (4)	32.3% (10)
	Number of programs responding	31
2. interpretation of causes of disability	Don't know/Not applicable	9.7% (3)
	Never (0)	6.5% (2)
	(1)	6.5% (2)
	Occasionally (2)	22.6% (7)
	(3)	22.6% (7)
	Usually (4)	32.3% (10)
	Number of programs responding	31
3. concepts of family structure and role identity	Don't know/Not applicable	6.5% (2)
	Never (0)	0.0% (0)
	(1)	6.5% (2)
	Occasionally (2)	16.1% (5)
	(3)	45.2% (14)
	Usually (4)	25.8% (8)
	Number of programs responding	31
4. styles of parenting or parent-child interaction	Don't know/Not applicable	3.2% (1)
	Never (0)	0.0% (0)
	(1)	3.2% (1)
	Occasionally (2)	16.1% (5)
	(3)	38.7% (12)
	Usually (4)	38.7% (12)
	Number of programs responding	31
5. views of children and childrearing	Don't know/Not applicable	3.2% (1)
	Never (0)	0.0% (0)
	(1)	3.2% (1)
	Occasionally (2)	12.9% (4)
	(3)	41.9% (13)
	Usually (4)	38.7% (12)
	Number of programs responding	31

Table 10 continued

Area in which staff members consider the perspective of culturally diverse families:	Program Director Response	Percent of Programs (number of programs)
6. goals of education	Don't know/Not applicable	6.5% (2)
	Never (0)	3.2% (1)
	(1)	3.2% (1)
	Occasionally (2)	12.9% (4)
	(3)	32.3% (10)
	Usually (4)	41.9% (13)
	Number of programs responding	31
7. styles of communication and social interaction	Don't know/Not applicable	3.2% (1)
	Never (0)	0.0% (0)
	(1)	3.2% (1)
	Occasionally (2)	29.0% (9)
	(3)	25.8% (8)
	Usually (4)	38.7% (12)
	Number of programs responding	31
8. expectations of children's behavior	Don't know/Not applicable	3.2% (1)
	Never (0)	0.0% (0)
	(1)	3.2% (1)
	Occasionally (2)	9.7% (3)
	(3)	38.7% (12)
	Usually (4)	45.2% (14)
	Number of programs responding	31
9. preferred treatment for health problems	Don't know/Not applicable	19.4% (6)
	Never (0)	0.0% (0)
	(1)	3.2% (1)
	Occasionally (2)	32.3% (10)
	(3)	19.4% (6)
	Usually (4)	25.8% (8)
	Number of programs responding	31
10. preferred intervention for disability	Don't know/Not applicable	9.7% (3)
	Never (0)	0.0% (0)
	(1)	3.2% (1)
	Occasionally (2)	22.6% (7)
	(3)	32.3% (10)
	Usually (4)	32.3% (10)
	Number of programs responding	31
11. views of change and intervention	Don't know/Not applicable	3.2% (1)
	Never (0)	0.0% (0)
	(1)	9.7% (3)
	Occasionally (2)	29.0% (9)
	(3)	25.8% (8)
	Usually (4)	32.3% (10)
	Number of programs responding	31

Table 10 continued

Area in which staff members consider the perspective of culturally diverse families:	Program Director Response	Percent of Programs (number of programs)
12. views of professional's role	Don't know/Not applicable	6.5% (2)
	Never (0)	0.0% (0)
	(1)	6.5% (2)
	Occasionally (2)	25.8% (8)
	(3)	29.0% (9)
	Usually (4)	32.3% (10)
	Number of programs responding	31
13. sense of time	Don't know/Not applicable	6.5% (2)
	Never (0)	3.2% (1)
	(1)	3.2% (1)
	Occasionally (2)	29.0% (9)
	(3)	16.1% (5)
	Usually (4)	41.9% (13)
	Number of programs responding	31
14. willingness to seek help	Don't know/Not applicable	3.0% (1)
	Never (0)	0.0% (0)
	(1)	3.0% (1)
	Occasionally (2)	30.3% (10)
	(3)	21.2% (7)
	Usually (4)	36.4% (12)
	Number of programs responding	31
15. structures for seeking assistance	Don't know/Not applicable	3.0% (1)
	Never (0)	0.0% (0)
	(1)	0.0% (0)
	Occasionally (2)	35.5% (11)
	(3)	25.8% (8)
	Usually (4)	35.5% (11)
	Number of programs responding	31
16. How often do program staff discuss with a family from a different culture, the family's values, beliefs or practices in the above areas?	Don't know/Not applicable	3.2% (1)
	Never (0)	3.2% (1)
	(1)	12.9% (4)
	Occasionally (2)	25.8% (8)
	(3)	29.0% (9)
	Usually (4)	25.8% (8)
	Number of programs responding	31
Total consideration of cultural differences score (out of 64)	Range	8-64
	Mean	44.58

Table 11

Summary of Responses Regarding Potential Cultural Differences in Perspective

Area of potential difference in perspective between staff and culturally diverse families	Program Director Response	Percent of Programs (number of programs)
1. interpretation of what a disability is	Don't know/Not applicable	6.5% (2)
	Never (0)	6.5% (2)
	(1)	12.9% (4)
	Occasionally (2)	35.5% (11)
	(3)	32.3% (10)
	Usually (4)	6.5% (2)
	Number of programs responding	31
2. interpretation of causes of disability	Don't know/Not applicable	6.3% (2)
	Never (0)	12.5% (4)
	(1)	18.8% (6)
	Occasionally (2)	34.4% (11)
	(3)	21.9% (7)
	Usually (4)	6.3% (2)
	Number of programs responding	32
3. concepts of family structure and role identity	Don't know/Not applicable	9.4% (3)
	Never (0)	6.3% (2)
	(1)	12.5% (4)
	Occasionally (2)	31.3% (10)
	(3)	37.5% (12)
	Usually (4)	3.1% (1)
	Number of programs responding	32
4. styles of parenting or parent-child interaction	Don't know/Not applicable	6.3% (2)
	Never (0)	3.1% (1)
	(1)	15.6% (5)
	Occasionally (2)	34.4% (11)
	(3)	31.3% (10)
	Usually (4)	9.4% (3)
	Number of programs responding	32
5. views of children and childrearing	Don't know/Not applicable	6.3% (2)
	Never (0)	3.1% (1)
	(1)	18.8% (6)
	Occasionally (2)	31.3% (10)
	(3)	37.5% (12)
	Usually (4)	3.1% (1)
	Number of programs responding	32

Table 11 continued

Area of potential difference in perspective between staff and culturally diverse families	Program Director Response	Percent of Programs (number of programs)
6. goals of education	Don't know/Not applicable	15.6% (5)
	Never (0)	3.1% (1)
	(1)	18.8% (6)
	Occasionally (2)	28.1% (9)
	(3)	34.4% (11)
	Usually (4)	0.0% (0)
	Number of programs responding	32
7. styles of communication and social interaction	Don't know/Not applicable	6.3% (2)
	Never (0)	3.1% (1)
	(1)	12.5% (4)
	Occasionally (2)	37.5% (12)
	(3)	37.5% (12)
	Usually (4)	3.1% (1)
	Number of programs responding	32
8. expectations of children's behavior	Don't know/Not applicable	9.4% (3)
	Never (0)	3.1% (1)
	(1)	6.3% (2)
	Occasionally (2)	34.4% (11)
	(3)	31.3% (10)
	Usually (4)	15.6% (5)
	Number of programs responding	32
9. preferred treatment for health problems	Don't know/Not applicable	18.8% (6)
	Never (0)	6.3% (2)
	(1)	15.6% (5)
	Occasionally (2)	40.6% (13)
	(3)	15.6% (5)
	Usually (4)	3.1% (1)
	Number of programs responding	32
10. preferred intervention for disability	Don't know/Not applicable	15.6% (5)
	Never (0)	9.4% (3)
	(1)	21.9% (7)
	Occasionally (2)	28.1% (9)
	(3)	21.9% (7)
	Usually (4)	3.1% (1)
	Number of programs responding	32
11. views of change and intervention	Don't know/Not applicable	15.6% (5)
	Never (0)	6.3% (2)
	(1)	15.6% (5)
	Occasionally (2)	37.5% (12)
	(3)	25.0% (8)
	Usually (4)	0.0% (0)
	Number of programs responding	32

Table 11 continued

Area of potential difference in perspective between staff and culturally diverse families	Program Director Response	Percent of Programs (number of programs)
12. views of professional's role	Don't know/Not applicable	9.4% (3)
	Never (0)	3.1% (1)
	(1)	15.6% (5)
	Occasionally (2)	43.8% (14)
	(3)	27.3% (9)
	Usually (4)	0.0% (0)
	Number of programs responding	32
13. sense of time	Don't know/Not applicable	9.4% (3)
	Never (0)	15.6% (5)
	(1)	18.2% (6)
	Occasionally (2)	28.1% (9)
	(3)	24.2% (8)
	Usually (4)	3.1% (1)
	Number of programs responding	32
14. willingness to seek help	Don't know/Not applicable	15.6% (5)
	Never (0)	3.1% (1)
	(1)	28.1% (9)
	Occasionally (2)	25.0% (8)
	(3)	21.9% (7)
	Usually (4)	6.3% (2)
	Number of programs responding	32
15. structures for seeking assistance	Don't know/Not applicable	18.8% (6)
	Never (0)	3.1% (1)
	(1)	18.8% (6)
	Occasionally (2)	31.3% (10)
	(3)	18.8% (6)
	Usually (4)	9.4% (3)
	Number of programs responding	32
Total differences in perspective score (out of 60)	Range	0-50
	Mean	28.84

Directors completed this section, except for the first item, to which 31 Directors responded.

For each of the programs surveyed, a total score for this section was calculated by adding the responses on the 15 items, for a possible score of 60. The higher the score, the more often the perspective of the Directors or staff members differed from the perspective of the culturally diverse families in the various areas. The average was 28.8; the range was from 0 to 50. A score of zero would be obtained by responding Don't know/Not applicable or Never to all the items in this section. This average indicates that early intervention staff experience a moderate degree of differences in perspective with the culturally diverse families they serve.

The response patterns of the Program Directors, noted in Table 11, also indicate a moderate degree of dissonance between the perspective of staff and culturally diverse families. For all of the items most of the Directors chose a response ranging from less than Occasionally (1) to more than Occasionally (3). Usually was seldom chosen as a response, and then only by one to three Program Directors. The one exception was in the area of expectations of children's behavior, to which 15.6% (5) of the Program Directors responded that their perspective or the perspectives of their staff Usually differed from the perspective of culturally diverse families. In addition, several Program Directors responded Don't know/Not applicable to many of the items, possibly reflecting the specific service focus of their programs. For instance, the area of preferred treatment for health problems would not be applicable to a program with behavior or speech problems as its main focus.

One Director commented that the staff in her program have had very different perspectives than culturally diverse families, at times, about what priorities of treatment should be etc., but that they overcame these differences effectively by focusing on the parents' wishes. Likewise, another Director added that, "As service providers, our perspectives often differ radically from those of the parents. The staff spend a large portion of time attempting to appreciate the parents' perspectives and working within the boundaries set by parents. Furthermore, the degree of dissonance experienced between early interventionists and culturally diverse parents may be similar to that experienced with mainstream Canadian parents. As one Director commented, "I'm not sure this (difference in perspective) is unique to families from culturally diverse backgrounds!" Similarly, a number of Directors emphasized the need to be sensitive to each family's needs, characteristic of family-focused intervention. This attitude is exemplified in the following: "In our program, we give consideration for differences among each individual family and do not assume that just because they were raised in Canada that their beliefs, values, (and) identities are something we innately understand." Another Director also remarked that these differences in opinion do not interfere with the program staff's ability to work closely with families from other backgrounds.

Acculturation

The beliefs and values of culturally diverse families fall on a continuum of acculturation. Some families adhere strictly to cultural values of their country of origin, while other families readily adopt the values of mainstream Canadians. A family's level of acculturation may affect their interaction with program staff and their participation in early intervention services. The Directors were asked to indicate how often their staff assessed the level of acculturation of culturally diverse families using a Likert type scale which was scored as 0=Never, 2=Occasionally, and 4=Usually. Fifty percent (16) of the 32 Program Directors responded that their programs Never assessed acculturation. Approximately 9% (n=3) of the Directors indicated that acculturation was Occasionally assessed by their programs, and 15.2% (n=5) of the Directors indicated that their programs assessed the level of families' acculturation more than Never, but less that Occasionally. One (3.1%) program Usually conducted assessment of acculturation, and in 3 programs (9.1%) acculturation was assessed more than Occasionally, but less often than Usually. Thus, programs seldomly assessed the level of acculturation of culturally diverse families.

The Program Directors were also asked to describe how the level of acculturation was assessed if they responded more than Never on the previous questionnaire item. These answers were grouped into categories by the researcher. A total of 12 of the 33 Program Directors completed this item. Most of these Program Directors gave one method of assessment, five Directors described two ways that their programs used to assess acculturation, and one program used three assessment methods. The methods of assessing acculturation and the number of programs that used them are shown in Table 12. In addition, one program indicated that there were too few culturally diverse families involved in the program to assess acculturation.

The Program Directors were also asked to describe characteristics that their programs used as indicators of possible cultural differences. This item was in a multiple-choice format with an opportunity to describe other indicators. The choices contained in the item were a) speak different language, b) family identifies different cultural affiliation, and c) difference in appearance (clothing, skin color). Of the thirty-one Program Directors completing this item, 27 (87.1%) responded that all three of the choices were potential indicators of cultural diversity. Three Program Directors (9.6%) deemed speaking a different language and the family's identification of cultural affiliation as factors. Speaking a different language and difference in appearance were chosen as

Table 12
Methods of Assessing Acculturation

Method	Number of programs
Interview or discussion with families	6
Observation of families	3
Informally	3
Being aware of differences	1
Comparing family's style with the mainstream culture	1
Staff meetings/discussion/debriefings	1
Home visits	1
Social workers assess and give information to the program`	1

possible indicators of cultural differences by one program (3.2%). Moreover, 12 Program Directors responded that their programs utilized other factors or characteristics indicating potential cultural differences; 11 of these programs offered descriptions of these characteristics or factors. These descriptions of additional indicators were categorized by the researcher, and are delineated in Table 13.

In summary, acculturation was formally assessed by only a small number of the programs surveyed, however, the staff were able to recognize indicators of possible cultural differences via their interaction with families, as is illustrated by the following comment: "Most programs are sensitive to and respect cultural similarities and differences from their students and their families. Most often more is learned about individual families during Individual Educational Planning meeting(s). Parents and staff share information. Staff try to incorporate family culture into (the) preschool program."

Index of Adaptation Scores

Scores from the different sections of the questionnaire were added together to produce a total Index of Adaptation Score, except for the section on differences in perspective, since the responses for that section did not indicate whether adaptations for culturally diverse children and families were made. The total Index of Adaptation Score was calculated for each program out of a possible 169 for programs with a centre-based component. Directors of early intervention programs that were home-based were not required to complete the section on instruction, since the items were inappropriate for instruction carried out in homes. The total Index of Adaptation Score for home-based programs was therefore, out of a possible 141. In order to make the Index of Adaptation Scores comparable for the two groups, the scores were converted into percentages. The average Index of Adaptation Percentage Score for the 33 Program Directors was 49.4%, with a range from 0% to 82%.

Thus, while it is inappropriate to state that the early intervention programs surveyed were only implementing half of the possible cultural adaptations contained in the questionnaire, or only employing these adaptations half of the time, the Index of Adaptation Percentage Score does indicate that the programs could be implementing the cultural adaptations contained in the questionnaire at a greater rate, both in number of adaptations implemented, and frequency of implementation.

Table 13

Indicators of Potential Cultural Differences

Characteristic or factor	Number of programs
Religious or spiritual affiliation	3
Family's comments re: food, customs, beliefs or traditions	2
Referral source or form indicates culture	2
Food restrictions	1
Restriction in observation of holidays	1
Families identifying themselves	1
Gender roles/favoritism	1
Family's background experience/history	1
Immigration status	1
Attitude towards program/staff	1
Different social customs or mannerisms	1

Effect of Cultural Composition of Children Served in Programs

In order to investigate the relationship between the cultural composition of the children being served and the number of programmatic adaptations made for culturally diverse children and families, the percentages of culturally diverse children involved in each early intervention program was calculated, as were the percentage of children in each program whose families had been in Canada less than 5 years, whose families usually spoke a language other than English, and whose families had basic beliefs and practices different from those of mainstream Canadian culture.

To determine if there was a relationship between the cultural composition of the children and families served by a program and the number of adaptations made, correlation coefficients were calculated between the percentage of children in each of the above categories and the Index of Adaptation Percentage Score. None of the correlation coefficients were statistically significant at an alpha level of .05, indicating that no relationship exists between the cultural composition of the children in early intervention programs and the number of adaptations made on the behalf of culturally diverse children.

To further investigate the relationship between cultural composition and programmatic adaptations, the programs were grouped according to the percentage of culturally diverse children involved. A number of one-way analyses of variances (ANOVAs) were performed to determine if the following percentages (percentage of culturally diverse children, the percentage of children whose families had been in Canada less than five years, the percentage of children whose families usually spoke a language other than English, or the percentage of children per program whose families had beliefs and practices different than the Canadian mainstream) had an effect on the total scores in each of the areas surveyed (instruction, assessment, program facilitation of cultural competence, policy, outreach, family involvement, consideration of cultural differences, and potential differences in perspective), as well as on the Index of Adaptation Percentage Score. Whether the programs were divided into two, three or four groups based on the percentage of children in each category, none of the ANOVAs completed were found to be statistically significant at an alpha level of .05, with one exception. These results indicate that there was not a relationship between the percentage of culturally diverse children involved in early intervention programs and the number of programmatic adaptations made by early interventionists.

The one ANOVA calculated that was found to be statistically significant demonstrated a relationship between the percentage of children from families whose beliefs and practices were different from mainstream Canadian culture, divided into four groups, and the total policy score achieved by the program ($\underline{F}$ (3, 21) = 3.24; $\underline{p}$ = .04).

Table 14 describes the results obtained. Post-hoc analysis using the Student-Newman-Keuls test indicated significant differences between the means of the group with the highest percentage of children from families with diverse practices and beliefs (group 4, M=2.5), and the other three groups (M=0.5, 0.7, and 0.0, respectively). The Scheffé test, which is more conservative than is the Student-Newman-Keuls test, revealed a significant difference between the means of group 4 (M=2.5) and group 3 (M=0.0). Again, group 4 had the highest percentage of children from families with beliefs and practices differed from those of mainstream Canadians (over 20% of the program), and group 3 had the second highest percentage of children in this category (between 10 and 20% of the children involved in the program). These results should be interpreted with caution, however, since the total policy score was only out of a possible 3 points, and because group 4 only included 2 programs, which were high outliers, while the other groups contained between 6 and 9 programs. Still it seems that either having a higher percentage of children from families whose beliefs and practices differ from those of the mainstream necessitates a need for the policy to state the program's mandate to serve culturally or linguistically diverse children and families, or having such a policy may precede having more children from families with culturally diverse practices and beliefs.

Effect of Program Type

To investigate the relationship between program type and the number of adaptations made in the various areas surveyed, numerous one-way analyses of variance were performed. Once again the results were not statistically significant with the exception of one ANOVA. Therefore it seems that the type of program had no effect on the adaptations made by early intervention programs to accommodate culturally diverse children and families in the areas of instruction, program staffing, policy, outreach, family involvement, consideration of cultural differences and potential differences in perspective, as well as on the Index of Adaptation Percentage Score. The one area of exception is in the area of assessment, where the ANOVA indicated a difference in the total assessment score on the basis of program type (F (2, 29) = 3.36; p = .049). Table 15 describes the results obtained. The Student-Newman-Keuls test indicated significant differences between the means of the centre-based programs (M=14.8), and programs with both a home- and centre-based component (M= 20.9). The Scheffé test failed to reveal a significant difference between the group means, probably due to the conservative nature of the analysis. As outlined in Table 15, it seems that programs with a home-based component conduct assessment in a more culturally competent manner than do programs with only a centre-based component, with those programs with only a home-based

Table 14

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Total Policy Scores by Percentage of Children from Families Had Basic Beliefs and Practices Different from Mainstream Canadian Culture

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Children	9.5000	3	3.1667	3.2439	.0425
Effects not due to Percentage of Children	20.5000	21	0.9762		
Total	30.0000	24			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 3	Grp 1	Grp 2	Grp 4
0.0000	Group 3				
0.5000	Group 1 (lowest %)				
0.6667	Group 2				
2.5000	Group 4 (highest %)	*	*	*	

Scheffé Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 3	Grp 1	Grp 2	Grp 4
0.0000	Group 3				
0.5000	Group 1 (lowest %)				
0.6667	Group 2				
2.5000	Group 4 (highest %)	*			

Table 15

Analysis of Variance and Student-Neuman-Keuls Test Results -Total Assessment Scores by Program Type

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Program Type	355.1354	2	177.5677	3.3627	.0486
Effects not due to Program Type	1531.3333	29	52.8046		
Total	1886.4688	31			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Program Type	C-B	H-& C-B	H-B
14.7692	Centre-Based			
20.8462	Home-and Centre-Based	*		
22.6667	Home-based			

component scoring slightly higher than those programs with both a centre- and home-based component.

Effect of Staff Characteristics

Staff characteristics may also affect the provision of culturally competent service. Correlation coefficients were calculated between the percentages of staff a) who belonged to the same cultural or linguistic group as the culturally diverse children being served, b) who had experience or involvement in other cultures, c) who could speak a language other than English, and d) who had training in cross-cultural effectiveness to increase their awareness of their own cultural values, beliefs, and practices, or their awareness of the values, beliefs and practices of other cultures, and the total scores in the areas surveyed, as well as the total Index of Adaptation Percentage scores. Moderately strong positive relationships were found between total outreach scores and the percentage of staff from the same cultural background as the culturally diverse children ($r = .42$, $p = .04$), as well as the percentage of staff who had cross-cultural experience or involvement ($r = .48$, $p = .02$). A moderately strong positive relationship was also found between the percentage of staff with training in cross-cultural effectiveness to increase their awareness of the values, beliefs, and practices of other cultures and the total family involvement score ($r = .50$, $p = .03$).

These findings were elaborated further by analysis using one-way ANOVAs. As indicated in Table 16, those programs with the highest percentage (over 30%) of staff belonging to the same diverse cultural backgrounds as the children involved in the program scored significantly higher on the outreach portion of the questionnaire ($M = 2.3$), than did those programs with lower percentages (less than 30%) of bicultural staff ($M = 0.0$) and those programs with no bicultural staff ($M = .88$; $F(2, 22) = 5.60$; $p = .02$). The more conservative Scheffé test only found statistically significant differences between mean outreach scores of the programs with the highest percentage of bicultural staff and the programs with the lower percentage of staff from the same cultural background as culturally diverse children.

Those programs with the highest percentage (50% or more) of staff having had experience of involvement in other cultures also scored significantly higher on the outreach portion of the survey ($M = 1.5$) than those programs with a lower percentage (between 1 and 25%) of staff with cross-cultural experience or involvement ($M = 0.1$; $F(3, 19) = 3.20$; $p = .046$, see Table 17). Even though these results were found to be statistically significant, it should be noted that the average outreach scores of even the groups with the highest percentage of bicultural staff or staff with experience in other cultures were still quite low, since the total outreach score was out of six. So even though

Table 16

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Total Outreach Scores by Percentage of Staff from the Same Cultural Background as Culturally Diverse Children

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Staff	10.4453	2	5.2226	5.6008	.0108
Effects not due to Percentage of Staff	20.5147	22	0.9325		
Total	30.9600	24			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 2	Grp 1	Grp 3
0.0000	Group 2 (lowest %)			
0.8824	Group 1 (none)			
2.2500	Group 3 (highest %)	*	*	

Scheffé Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 2	Grp 1	Grp 3
0.0000	Group 2 (lowest %)			
0.8824	Group 1 (none)			
2.2500	Group 3 (highest %)	*		

Table 17

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Total Outreach Scores by Percentage of Staff Who Had Experience of Involvement in Other Cultures

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Staff	6.9182	3	2.3061	3.2004	.0468
Effects not due to Percentage of Staff	13.6905	19	0.7206		
Total	20.6087	22			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 2	Grp 3	Grp 1	Grp 4
0.1429	Group 2 (lowest %)				
0.8333	Group 3				
1.0000	Group 1 (none)				
1.5000	Group 4 (highest %)	*			

Scheffé Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 2	Grp 3	Grp 1	Grp 4
0.1429	Group 2 (lowest %)				
0.8333	Group 3				
1.0000	Group 1 (none)				
1.5000	Group 4 (highest %)	*			

those programs with high percentages of staff who were bicultural or who had cross-cultural experience were making considerable more outreach efforts than the other programs. Nevertheless, there is still more they could have been doing.

Having a high percentage of staff with experience or involvement also seems to facilitate cultural competency (F (3, 19) = 3.39; p = .04). As the results of the Student-Neuman-Keuls test, shown in Table 18, indicate, those programs with the highest percentage (over 50%) of staff with cross-cultural experience or involvement achieved significantly higher total Index of Adaptation Percentage scores (M = 53.9%) than did those programs with a lower percentage (26-49%) of staff with cross-cultural experience (M = 38.0%). More puzzling, however, is the fact that those programs with the lowest percentage (1-25%) of staff with cross-cultural experience also achieved significantly higher total Index of Adaptation Scores than did those programs with 26 to 49% of their staff having had experience or involvement in other cultures (M = 51.7%, compared to M =38.0%). The Scheffé test failed to reveal any significant differences among the group means. So although it seems that programs with a higher percentage of staff with cross-cultural experience or involvement made more adaptations, more often, to meet the needs of culturally diverse children and families, further research to clarify this relationship is needed, perhaps with a larger sample size.

Having a high percentage of staff with training in cross-cultural effectiveness to increase their awareness of the values, beliefs, and practices of other cultures also appears to have effected the provision of culturally competent services (F (3, 14) = 6.13; p = .01). As indicated by the results in Table 19, those programs with the highest percentage (over 70%) of staff having had training in this area scored significantly higher in the area of providing services to families in their first language (M =9.3, out of a possible 16) than did the other three groups of programs with lower percentages. (The means for the groups with lower percentages of staff with cross-cultural training were M = 2.8, 4.6., and 1.6, respectively, from group 1, with no staff with this training, to group 3, with 30-70% of staff having had training to increase their awareness of other cultures.) The more conservative Scheffé test only revealed significant differences between those programs with the highest percentage of staff in this category (M =9.3), and those programs with between 30-70% of their staff (M = 1.6), as well as those programs with none of their staff having had training to increase their awareness of the values, beliefs, and practices of other cultures (M =2.8). Again, it should be noted that higher scores in the area of family involvement do not necessarily indicate more culturally competent service, since the use of one type of translator (e.g., bilingual staff) may preclude the use of the other types of translators included in this section of the questionnaire.

Table 18

Analysis of Variance and Student-Neuman-Keuls Test Results -Total Index of Adaptation Percentage Scores by Percentage of Staff Who Had Experience of Involvement in Other Cultures

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Staff	0.1252	3	0.0417	3.3929	.0392
Effects not due to Percentage of Staff	0.2336	19	0.0123		
Total	0.3588	22			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 1	Grp 3	Grp 2	Grp 4
0.3601	Group 1 (none)				
0.3797	Group 3				
0.5165	Group 2 (lowest %)		*		
0.5385	Group 4 (highest %)		*		

Table 19

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Family Involvement Scores by Percentage of Staff Who Had Training to Increase Awareness of the Values, Beliefs, and Practices of Other Cultures

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Staff	144.3778	3	48.1259	6.1307	.0070
Effects not due to Percentage of Staff	109.9000	14	7.8500		
Total	254.2778	17			

Student-Neuman-Keuls Test

Significance Level $\leq$ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 3	Grp 1	Grp 2	Grp 4
1.6000	Group 3				
2.7500	Group 1 (none)				
4.6000	Group 2 (lowest %)				
9.2500	Group 4 (highest %)	*	*	*	

Scheffé Test

Significance Level $\leq$ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 3	Grp 1	Grp 2	Grp 4
1.6000	Group 3				
2.7500	Group 1 (none)				
4.6000	Group 2 (lowest %)				
9.2500	Group 4 (highest %)	*	*		

In addition, as the results of the Student-Neuman-Keuls test indicate (see Table 20), those programs with the highest percentage (70% or greater) of staff with training to increase their awareness of other cultures also attained significantly higher total Index of Adaptation Percentage scores (M = 59.4%) than did those programs with a lower percentage of staff (30-70%) with training to increase their awareness of the values, beliefs, and practices of other cultures (M = 39.9%, F (3, 14) = 4.02; p = .03). The Scheffé test did not reveal any significant differences. Thus, it appears that having higher percentages of staff with training to increase their awareness of the values, beliefs, and practices of other cultures may increase the number and types of adaptations made by programs to provide culturally competent early intervention.

In summary, it seems that those programs with higher percentages of staff from the same culturally diverse groups as the children involved in the program, with experience or involvement in other cultures, or with training to increase their awareness of the values, beliefs, and practices of other cultures, are more likely to provide culturally competent early intervention, especially in the areas of outreach, and family involvement. On the other hand, there seemed to be no relationship between having high percentages of staff who spoke a language other than English, or who had had training in cross cultural effectiveness to increase their awareness of their own cultural values beliefs and practices, and culturally competent practice.

Additional Adaptations and Recommendations

According to one comment made by a Program Director, that working with culturally diverse children is definitely an area of frustration, and another Director's comment that "We have a long way to come to become more culturally sensitive," there is a definite need for early interventionists to become more culturally competent in their interactions with culturally and linguistically diverse children and families. Furthermore, one Program Director stated that her program was serving a greater percentage of culturally diverse families now than ever before and in her words, "We certainly have a lot more that we could be doing ..."

Although there is definitely more that could be done, early intervention programs are making adaptations to better meet the needs of culturally diverse children and families. Besides all the adaptations contained in the questionnaire items, Program Directors mentioned a number of additional ways to facilitate more effective interactions with children and families from different cultural backgrounds. Some of these adaptations include having family consultants who make efforts to learn about each family's culture, especially how it affects communication style, childrearing practices, etc.; incorporating

Table 20

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Index of Adaptation Percentage Scores by Percentage of Staff Who Had Training to Increase Awareness of the Values, Beliefs, and Practices of Other Cultures

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	*F*	*p*
Main Effects of Percentage of Staff	0.1390	3	0.0463	4.0242	.0294
Effects not due to Percentage of Staff	0.1612	14	0.0115		
Total	0.3001	17			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 1	Grp 3	Grp 2	Grp 4
0.3802	Group 1 (none)				
0.3989	Group 3				
0.5337	Group 2 (lowest %)				
0.5942	Group 4 (highest %)		*		

culturally diverse material in play centres; purchasing books that reflect diverse cultures; translating materials such as brochures and newsletters into the parents' native language; and encouraging culturally diverse families to assimilate more with the Canadian culture (i.e., learn English, experience Canadian food, interact with other families).

The Program Directors were also given opportunity to make recommendations to other early intervention programs to be more effective in their interactions with culturally diverse children and families. One Director suggested that staff recognize that interactions with culturally diverse children and families will be an issue in building effective relationships and programs. Again, there are recommendations for services to meet the individual child and family needs, with the intent of automatically taking into account cultural differences and being sensitive to the family's culture. Related to this is the recommendation to view and treat all parents and family members as the experts in relation to their child. Parents and families don't have to be culturally different to have different goals, expectations, and abilities to cope. Similarly, one Director recommended that interventionists make every effort when working with culturally diverse families to validate their style of parenting, culture, etc. "Try to prepare them for mainstream education with the skills that will be required. Address areas where these skills may conflict with their cultural expectations. Help them to identify potential issues of conflict that may occur in the future." Facilitating parent involvement in the program was also advised. One Director suggested that parents involved in early intervention programs should talk to parents who prefer to keep their children at home because of their child's special needs, possibly because of the influence of their culture.

In addition, a number of the recommendations urged early interventionists to recognize cultural differences, just as they would recognize other significant issues and make allowances, so that the program could be more effective, as well as their own biases and prejudices. It was also recommended that when differences arise between service providers and families that early interventionists explain why their approach may need to be different and work out how compromises can best meet everyone's needs. Other recommendations by Program Directors centred on educating program staff by offering specific training regarding various cultures, by obtaining input from other countries (e.g. international students) on program content (e.g., music, games), and by obtaining and providing written reference materials. It was also suggested that translators be hired as needed. Finally, as mentioned by a Program Director, awareness and perseverance are needed to interact effectively with children and families from diverse cultural backgrounds.

Results from the Questionnaires Given to Staff of Early Intervention Programs

Demographic Information

Questionnaires were also administered to the staff of organizations that provide service to infants and/or preschoolers at risk for or having special needs and their families. The same programs that accepted questionnaires for Program Directors also accepted questionnaires for their staff. The questionnaires were the same as those given to the Program Directors, except for the omission of sections on program staff, policy and outreach.

In total, 196 staff questionnaires were given out, 65 of which were completed and returned, for a response rate of 33%, significantly lower than that of the Program Directors. The response rate was lower for a number of reasons. Three of the staff completing questionnaires were part of a staff team in more than one program, and thus, did not complete multiple questionnaires. Two of the questionnaires were completed jointly by two staff members and one staff team respectively. In addition, the staff from one program declined participation because there were no culturally diverse children involved in the program. Other possible reasons for the low response rate were that a) a few of the Program Directors, after receiving questionnaires for each of their staff, decided to distribute the questionnaires to only those staff working directly with children and families of diverse cultural backgrounds; and b) the fact that the questionnaires were delivered just before the Christmas season and holidays. Moreover, one of the Program Directors commented that those staff who didn't complete the questionnaire may have been ashamed of their lack of cultural sensitivity.

Eighty-percent of the 65 staff were from programs based in Edmonton, 9.2% from Spruce Grove, 6.2% from Sherwood Park, and 4.6% from St. Albert.

Staff from various job roles responded. Twenty of the respondents (35.1%) reported that they were teachers or instructors, nine of the respondents (15.8%) were speech language pathologists, and seven (12.3%) were in-home or family consultants. Also among the respondents were four community workers (7.0%), four social workers (7.0%), three early intervention workers (5.3%), and two teacher assistants (3.5%). Other positions held by the staff were audiologist, childcare assistant, consultant, occupational therapist, Program Director, physiotherapist, rehabilitation practitioner, and teacher/in-home consultant (n=1 for each position mentioned, 1.8%).

Ten of the staff (15.6%) were from home-based programs, 26 (40.6%) from centre-based, and 28 (43.8%) staff were from programs with both a home- and centre-based component.

Forty-one of the 65 staff were part of programs that provided services to preschoolers between the ages of 2-6 (64.1%). Ten of the staff (15.6%) worked for programs designed for infants (birth to 3 1/2 years), and eight of the staff (12.5%) were involved in programs for both infants and preschoolers (12.3%). In addition, three of the staff (4.7%) were from programs that provided services for preschoolers, older children and adolescents, and two of the respondents (3.1%) worked in programs that served infants, preschoolers, older children and adolescents.

The staff were asked to report if their programs served children with disabilities and if so what types of disability were represented in their program. The 65 staff gave 325 descriptions of disabilities that were categorized using the same classification as was used earlier with the responses of the Program Directors. The categories of disability and the number of respondents indicating that their programs served children with that type of disability are reported in Table 21. Once again it should be noted that these categories are not exclusive and that there may be significant areas of overlap. As with the early intervention programs, many of the staff served children with speech and language disabilities, and unspecified, numerous disabilities. Moreover, many of the staff served children with behavior disorders.

Number of Children Involved from Diverse Cultural Backgrounds

A total of 1096 children were involved in the 56 classrooms or caseloads for which staff reported the number of children. The average number of children involved in each program was 19.6, with a range from 2 to 90 children. Fifty percent of the staff worked in programs serving 15 or more children.

The staff also reported on the number of children involved in their programs who had come from diverse cultural and/or linguistic backgrounds. The respondents also indicated how many of these children were from families that a) that had been in Canada less than 5 years, b) who spoke a language other than English at home, and c) whose basic beliefs and practices in the areas of education, healthcare, family structure or childrearing were different from those of mainstream Canadian culture. Sixty-four of the 65 staff completed this section of the questionnaire. The number of staff serving culturally diverse children as well as the number of children in each of the above categories are given in Table 22. It should be noted that the number of children reported in each cell of Table 22 may not be the actual number of children in the programs from that cultural background, because there may have been more than one staff member working with any particular child. Table 2 gives a more accurate number of culturally diverse children involved in early intervention programs.

Table 21
Categories of Disability Served by Staff Respondents

Type of disability	Number of staff (out of 65)
Unspecified numerous disabilities	26
Speech and language difficulties	19
Behavior disorders	16
Intellectual disabilities	11
Physical handicaps	12
Developmental delays	9
Neurological disabilities	8
Pervasive developmental disorder	8
Learning disabilities	8
Hearing impairments	8
Multiple handicaps	4
Motor disorders	2
Visual impairments	2
Psychotic or mental illnesses	2
No apparent disabilities	2
Special health care needs	1
Sensory impairments	1
Economically disadvantaged	1

Table 22

Summary of Number of Children from Diverse Cultural or Linguistic Backgrounds Served by Early Intervention Staff

Results given in terms of a) number (and percentage) of staff having **one or more** children in this cell b) total number of children involved (out of a total of 1074 children, served by 64 staff)	Total number of staff serving children from this cultural background	Number of staff serving children whose family had been in Canada less than 5 years	Number of staff serving children whose family usually spoke a language other than English	Number of staff serving children whose family has basic beliefs and practices different from those of mainstream Canadian culture
a) **East Asian** (China, Japan, Korea...)	14 staff (21.9%) 21 children	3 staff * (4.7%) 3 children	13 staff (20.3%) 17 children	11 staff (17.2%) 15 children
b) **Southeast Asian** (Vietnam, Laos, Cambodia, Thailand...)	15 staff (23.4%) 22 children	7 staff * (11.1%) 9 children	12 staff (18.8%) 17 children	7 staff (/63) (11.1%) 11 children
c) **South Asian** (India, Pakistan, Nepal, Bangladesh ...)	17 staff (26.6%) 36 children	6 staff (9.3%) 15 children	13 staff (20.3%) 32 children	12 staff (18.8%) 30 children
d) **Aboriginal/ First Nations** (Metis, Inuit, Cree ...)	42 staff (65.6%) 148 children (13.8% of children)	Not applicable	3 staff (4.6%) 5 children	9 staff ** (15%) 21 children ***
e) **European** (France, Portugal, Germany, Bulgaria, Greece, Britain...)	27 staff (42.2%) 79 children	4 staff (6.2%) 5 children	19 staff (29.7%) 23 children	8 staff (12.5%) 14 children
f) **Middle Eastern** (Iran, Turkey, Kurdistan ...)	13 staff (20.3%) 16 children	5 staff* (7.9%) 6 children	11 staff (17.2%) 13 children	9 staff (14.1%) 12 children
g) **South or Central American** (Mexico, El Salvador, Nicaragua, Chile, Argentina, ...)	13 staff (20.3%) 20 children	7 staff (10.9%) 10 children	10 staff (15.6%) 17 children	8 staff (12.5%) 14 children
h) **Caribbean** (Jamaica, Trinidad, Tobago, Barbados...)	12 staff (18.8%) 24 children	4 staff (6.3%) 9 children	5 staff (7.8%) 10 children	3 staff (4.7%) 8 children
i) **African** (Kenya, Uganda, Ghana, Chad, Zimbabwe, ...)	8 staff (12.5%) 13 children	5 staff * (7.9%) 10 children	6 staff (9.4%) 8 children	5 staff (7.8%) 9 children
j) **Other** **# of staff** Francophone/Quebecois 1 Mixed heritage 4 Fijian 3 Australian 1	6 staff (9.4%) 8 children	1 staff (1.6%) 2 children	4 staff (6.3%) 6 children	2 staff (3.1%) 4 children

*indicates that 63 staff completed this cell

** indicates that 60 staff completed this cell

*** Note: most of these children lived in mainstream Canadian foster homes

The percentage of staff working with culturally diverse children is similar to those percentages given by the Program Directors, with a high percentage of staff working with children from Aboriginal/First Nations, and European backgrounds. As shown in Table 22, almost 66% of the staff responded that they worked with at least one child from an Aboriginal/First Nations background, although few of these children came from families who Usually spoke a language other than English, or who had beliefs and practices different from mainstream Canadian culture, probably because many of these children lived in foster homes. In addition, 42.2% of the staff worked with children from European backgrounds, with many of these children coming from families who Usually speak a language other than English. In the other cultural categories, approximately 20% of the staff worked with children from that background, except for the African category, which was slightly lower with 12.5% of the staff serving children from this background. As found with the responses of Program Directors, the number of children from diverse cultural backgrounds whose family usually spoke a language other than English, or whose family had basic beliefs and practices different from mainstream Canadian culture, and the percentage of staff serving them, remained quite consistent with the total number of culturally diverse children and the percentage of staff serving them. The number of children whose families have been in Canada less than 5 years, and the percentage of staff serving them, however, were significantly less for each of the cultural backgrounds, possibly indicating that cultural beliefs and practices continue to be passed down through families, despite the length of time they've spent in Canada.

The following percentages were calculated from the report of the 55 staff who gave the number of children involved in their classroom or part of their caseload: the percentage of culturally diverse children, the percentage of children whose families had been in Canada less than five years, the percentage of children whose family spoke a language other than English, and the percentage of children whose family had basic beliefs and practices different from mainstream Canadian culture. The average percentage of culturally diverse children who were part of each staff member's classroom or caseload was 33.8%, with a range from 0 to 100%. The average percentage of culturally diverse children whose families had been in Canada less than 5 years was quite a bit lower, at 6.1%, ranging from 0 to 60%. The percentage of culturally diverse children whose families usually spoke a language other than English averaged 12.6%, and ranged from 0 to 66.7%. Moreover, the average percentage of culturally diverse children whose families had basic beliefs and practices that differed from those of mainstream Canadian culture who were part of an interventionist's classroom or caseload was 10.9%, again ranging from 0 to 66.7%. Thus, anywhere from 10% to more than 33% of children served by early intervention staff may need programmatic adaptations in response to linguistic or cultural differences.

In summary, a significant percentage of the staff who responded served children from diverse cultural backgrounds, and a significant percentage of the staff's classrooms or caseloads are comprised of children who needed culturally competent early intervention.

Program Characteristics

Instruction

The staff responded to the same 7 items on instruction as did the Program Directors. The responses to the Likert type scale are presented in Table 23. Again those staff working in programs with only a home-based component were not required to complete this section, since the content focused on aspects of a classroom setting. Between 52 and 54 of the 55 staff with a centre-based component completed each item.

The results in Table 23 were similar to those given by the Program Directors in that behavior that is influenced by a child's culture is Usually accepted and respected by a high proportion of the staff (39.6%), with another 35.9% accepting and respecting culturally different behavior Occasionally or slightly more than Occasionally. The staff also incorporated materials in other languages or from other cultural groups more often than did the Program Directors; (53.7% of staff did so at least Occasionally, compared to 37.5% of the Directors). Moreover, compared to the Program Directors, the early intervention staff were more prone to select Never as a response, and less likely to choose Don't know/Not applicable. This may be because the staff were more likely than were the Directors to provide instruction directly to the children. More than half of the staff Never provided instruction in the child's first language (62.3%), instructed skills and tasks unique to the child's home environment (50.0%), or used materials commonly found in the home environment that were not normally found in the classroom (52.8%). The average total instruction score was also quite low, 9.5 out of a possible 28, indicating that much more could have been done by the staff to provide culturally competent instruction to culturally diverse children.

The staff were also asked to describe any additional adaptations that they made to instruction for children from different cultural or language groups. A number of the staff had a number of excellent suggestions including accessing contacts and resources about certain languages or cultural behaviors, considering the families' religious backgrounds during holidays, using interpreters, having snacks from a child's particular culture, incorporating culturally diverse dolls in play, including materials from culturally diverse communities during an instructional theme, integrating children in programs that address

Table 23
Summary of Staff Responses to Items on Instruction

Questionnaire Item	Response	Percent of Staff (number of staff)
1. Skills and tasks unique to the child's home environment are instructed in the classroom (e.g., sitting on cushions on the floor, eating with hands or special utensils, etc.)	Don't know/not applicable	5.8% (3)
	Never (0)	50.0% (26)
	(1)	26.9% (14)
	Occasionally (2)	5.8% (3)
	(3)	3.8% (2)
	Usually (4)	7.7% (4)
	Number of staff responding	52
2. Materials commonly found in the home, but not in mainstream classrooms are used during instruction (e.g., ethnic artifacts, rugs for sitting, ethnic clothing in the house corner, etc.)	Don't know/not applicable	5.7% (3)
	Never (0)	52.8% (28)
	(1)	26.4% (14)
	Occasionally (2)	11.3% (6)
	(3)	1.9% (1)
	Usually (4)	1.9% (1)
	Number of staff responding	53
3. Materials and tasks from culturally diverse communities are incorporated in the classroom (e.g., ethnic dance or music, storytelling, preparation of ethnic foods)	Don't know/not applicable	7.6% (4)
	Never (0)	28.3% (15)
	(1)	20.8% (11)
	Occasionally (2)	32.1% (17)
	(3)	3.8% (2)
	Usually (4)	7.5% (4)
	Number of staff responding	53
4. Materials in other languages or from the cultural groups of the students, other than the mainstream, (e.g., pictures of children from other ethnic groups) are part of the classroom environment	Don't know/not applicable	5.6% (3)
	Never (0)	22.2% (12)
	(1)	18.5% (10)
	Occasionally (2)	20.4% (11)
	(3)	14.8% (8)
	Usually (4)	18.5%(10)
	Number of staff responding	54
5. Behavior that is influenced by a child's culture, that is different from mainstream culture, is accepted and respected (e.g., amount of eye contact, ways of eating or dressing, ways of dealing with disagreements, etc.)	Don't know/not applicable	1.9% (1)
	Never (0)	11.3% (6)
	(1)	11.3% (6)
	Occasionally (2)	17.0% (9)
	(3)	18.9% (10)
	Usually (4)	39.6% (21)
	Number of staff responding	53

Table 23 continued

Questionnaire Item	Response	Percent of Staff (number of staff)
6. Similarities and differences in children's cultural behavior are recognized and mentioned to the students	Don't know/not applicable	9.4% (5)
	Never (0)	26.4% (14)
	(1)	18.9% (10)
	Occasionally (2)	20.8% (11)
	(3)	17.0% (9)
	Usually (4)	7.5% (4)
	Number of staff responding	53
7. Instruction is provided (at least sometimes) in the child's first language	Don't know/not applicable	5.7% (3)
	Never (0)	62.3% (33)
	(1)	17.0% (9)
	Occasionally (2)	1.9% (1)
	(3)	1.9% (1)
	Usually (4)	11.3% (6)
	Number of staff responding	53
Total instruction score (out of 28)	Range	0-27
	Mean	9.5

their cultural needs, such as bilingual programs, and hiring staff with knowledge of the child's first language. One staff member suggested some specific instructional techniques that would benefit culturally or linguistically diverse children: repeating questions several times, using body language, and showing the children completed work samples. In addition, a number of respondents mentioned involving the parents in instructional programming. Some of the ways that early intervention staff involved parents were by having them present during instruction and asking them about their preferences for their child, asking them about important festivals, dress, food, and family traditions and incorporating them into classroom activities, and using an interpreter during planning and progress report meetings. One early interventionist mentioned, however, that it was difficult to involve economically disadvantaged parents in the program because of the many problems parents faced in providing for their families.

Other respondents gave reasons why cultural adaptations were not made in their programs. Some of the reasons cited were that most of the families did not practice their cultural traditions in an open manner or had adopted Western practices, the low developmental level of the children, the scarcity of children from different cultural or language groups involved in the program, and the particular nature of the program. Relatively few of the staff, in comparison to the Program Directors, mentioned that meeting individual needs automatically met needs arising from cultural diversity.

Assessment

This part of the questionnaire included nine items pertaining to the assessment methods of early intervention staff. Again, the same Likert type scale was used and scored as follows: Never or Don't know/Not applicable, scored as 0, Occasionally, scored as 2, and Usually, scored as 4. Sixty-two of the 65 staff completed this portion. Percentages for each response were calculated, and a total assessment score was tabulated for each respondent.

The pattern of responses obtained from the staff responses was similar to those obtained from the Program Directors. The percentages of staff who adapted the assessment process on at least an Occasional basis, however, were slightly lower than those of the Program Directors, as was the average total assessment score of 16.1 out of a possible 36. As shown in Table 24, a high percentage (80.6%) of the staff Usually involved immediate family members in the assessment process. A high percentage of the staff also involved other individuals of the family's choosing (69.4%), and carried out assessment in environments familiar to the child (69.4%), on at least an Occasional basis. The percentage of staff implementing the other adaptations, at least Occasionally was

Table 24

Summary of Staff Responses to Items on Assessment

Questionnaire Item	Response	Percent of Staff (number of staff)
1. Assessment involves immediate family members in the assessment process, not only the individual child	Don't know/not applicable	4.8% (3)
	Never (0)	1.6% (1)
	(1)	4.8% (3)
	Occasionally (2)	6.5% (4)
	(3)	1.6% (1)
	Usually (4)	80.6% (50)
	Number of staff responding	62
2. Assessment involves other individuals whom the family desires to be part of the assessment process (e.g., extended family, godparents, etc.)	Don't know/not applicable	8.1% (5)
	Never (0)	9.7% (6)
	(1)	12.9% (8)
	Occasionally (2)	8.1% (5)
	(3)	11.3% (7)
	Usually (4)	50.0% (31)
	Number of staff responding	62
3. Assessment includes indicators of development (i.e., milestones) that are characteristic of the child's culture rather than of mainstream Canadian culture (e.g., weaning and self-feeding at later ages, timing or achievement of milestones may not be as important in some cultures)	Don't know/not applicable	10.0% (6)
	Never (0)	16.7% (10)
	(1)	26.7% (16)
	Occasionally (2)	23.3% (14)
	(3)	13.3% (8)
	Usually (4)	10.0% (6)
	Number of staff responding	60
4. Assessment instruments are designed or adapted specifically for the child's cultural or linguistic group	Don't know/not applicable	8.6% (5)
	Never (0)	37.9% (22)
	(1)	31.0% (18)
	Occasionally (2)	8.6% (5)
	(3)	6.9% (4)
	Usually (4)	6.9% (4)
	Number of staff responding	58
5. Assessment is carried out in an environment familiar to the child and his or her family (e.g., home vs. clinician's office)	Don't know/not applicable	4.8% (3)
	Never (0)	16.1% (10)
	(1)	9.7% (6)
	Occasionally (2)	24.2% (15)
	(3)	6.5% (4)
	Usually (4)	38.7% (24)
	Number of staff responding	62

Table 24 continued

Questionnaire Item	Response	Percent of Staff (number of staff)
6. Assessment is carried out in the language most commonly spoken in the family's home	Don't know/not applicable	8.1% (5)
	Never (0)	25.8% (16)
	(1)	21.0% (13)
	Occasionally (2)	12.9% (8)
	(3)	12.9% (8)
	Usually (4)	19.4% (12)
	Number of staff responding	62
7. Assessment instruments used are valid and reliable for children from the child's culture	Don't know/not applicable	25.0% (15)
	Never (0)	31.7% (19)
	(1)	26.7% (16)
	Occasionally (2)	6.7% (4)
	(3)	1.7% (1)
	Usually (4)	8.3% (5)
	Number of staff responding	60
8. Outcome measures of the child's development or progress in the program include behaviors characteristic of his/her culture (e.g., may be less emphasis on independence, and more emphasis on interdependence within the family)	Don't know/not applicable	10.0% (6)
	Never (0)	15.0% (9)
	(1)	28.3% (17)
	Occasionally (2)	26.7% (16)
	(3)	13.3% (8)
	Usually (4)	6.7% (4)
	Number of staff responding	60
9. The assessment process is adapted or altered for children from diverse cultural backgrounds (e.g., more observation, different instruments, etc.)	Don't know/not applicable	8.8% (6)
	Never (0)	21.1% (2)
	(1)	22.8% (8)
	Occasionally (2)	21.1% (5)
	(3)	12.3% (3)
	Usually (4)	14.0% (7)
	Number of staff responding	57
Total assessment score (out of 36)	Range	0-31
	Mean	16.0721

somewhat lower, with approximately 50% of the staff surveyed doing so. Two adaptations involving test instruments, however, were made less frequently, with only 22.4% of staff using assessment instruments designed or adapted specifically for diverse cultural or linguistic groups, at least Occasionally, and only 16.7% of the staff using assessment instruments that were valid and reliable for children from the children's culture on at least Occasional basis, with only 8.3% of the staff Usually doing so.

As with the Program Directors, it seems that early intervention staff were making those adaptations to assessment that would be made in a family focused approach, without particular reference to each family's culture. The frequency of implementing the other adaptations and the low average total assessment score, however, indicate that early interventionists could be making greater efforts to accommodate culturally diverse children in the assessment process.

Assessment instruments. The staff were asked to a) list all the assessment instruments that they personally used, and to b) indicate which instruments were used with children from diverse cultural backgrounds. Forty-five of the 65 staff completed this section of the questionnaire. Seventeen staff responded that they did not conduct formal assessments, and another six of the staff used an inventory or checklist designed by their program staff. A total of 42 assessment instruments were reported by the respondents. Those instruments mentioned by more than one of the staff are shown in Table 25. As with the Program Directors, there was a wide range of instruments used. The Diagnostic Inventory for Screening Children (DISC) was used most often. There was also a preponderance of speech and language assessment instruments.

As with the Program Directors, the staff were asked to indicate the assessment instruments used for children from culturally diverse backgrounds by placing a star beside them. It was assumed that if there was no star beside an assessment instrument that it was not used for culturally diverse children. The responses of 32 staff members were appraised. The other staff either did not complete the item, or did not conduct formal assessments. Twenty-four of the staff (75% of those responding) indicated that there was a difference in the assessment process, either using none of the instruments or only selected ones for culturally diverse children, whereas eight (25%) of the staff responded that they used the same instruments for culturally diverse and mainstream children. These percentages were identical to those obtained from the Program Directors' responses.

The assessment instruments that the staff used for culturally diverse children were similar to those indicated by the Program Directors: Diagnostic Inventory for Screening Children (DISC) (used by 2 staff); Carolina Curriculum for Infants and Young Children

Table 25

Assessment Instruments Used Most Often by Early Intervention Staff

Assessment Instrument	Number of staff
Diagnostic Inventory for Screening Children	11 staff*
Peabody Picture Vocabulary Test (PPVT)	7 staff*
Carolina Curriculum	8 staff*
Expressive One Word Vocabulary Test (EOWPVT)	5 staff*
Receptive Expressive Emergent Language Scale 2 (REEL-2)	5 staff*
Preschool Language Assessment Instrument (PLAI)	5 staff*
Preschool Language Scale 3	4 staff*
Rosetti	3 staff
GAEL-P	3 staff
Unspecified speech language assessments	3 staff
Brigance	3 staff
Test of Auditory Comprehension of Language (TACL)	3 staff*
Bayley Scales of Infant Development	2 staff*
Early Intervention Developmental Profile (EIDP)	2 staff*
Goldman-Fristoe Test of Articulation	2 staff*
McArthur Developmental Inventory	2 staff
Stanford Binet 4th Edition	2 staff*

*denotes instruments used with culturally and/or linguistically diverse children (used by 2 staff); Peabody Picture Vocabulary Test (mentioned by 2 staff); Alberta Education Dependent Curriculum Guide, Overview/Checklist; Early Intervention Development Profile (EIDP); Transdisciplinary Play-Based Assessment; Leiter; Bayley Scales of Infant Development; McCarthy Scales of Children's Abilities, WPPSI-R; Stanford Binet, 4th Edition; Test of Auditory Comprehension of Language (TACL); Expressive One Word Picture Vocabulary Test (EOWPVT); Preschool Language Scale 3; Preschool Language Assessment Instrument (PLAI); McArthur Development Inventory; Structured Photographic Expressive Language Test-Preschool (SPELT-P); Goldman-Fristoe Test of Articulation; and the Receptive Expressive Emergent Language Scale (REEL). Staff also mentioned that general classroom checklists as well as language samples and vocabulary tests were used with culturally diverse children.

Additional comments on assessment. A number of early intervention staff provided further comments on adaptations made to the assessment process for culturally diverse children. In making adaptations to the assessment process, staff mentioned that as children may have had limited exposure to certain materials,the norms given by the test publisher were not used when interpreting results. In addition, the staff were careful to separate out language issues when assessing speech, and used interpreters or translators for linguistically different children. One respondent mentioned that it was difficult to differentiate between the effects of hearing loss and the effects of culture when assessing culturally diverse children with hearing losses.

Many of the adaptations made centred on family involvement. Some of the accommodations mentioned by staff were learning as much as possible about the families' cultures, and making adaptations that may be necessitated by different characteristics of the children's families such as command of English, cultural and spiritual or religious beliefs. Moreover, like the Program Directors, many of the staff noted the significance of parental involvement in the assessment process, especially the importance of obtaining their input through discussion in regards to their child's development. The comments of one of the staff typifies the importance of parental involvement: "(I) rely heavily on parent's perceptions/assessments of children's developmental levels, e.g., comparing developmental progress of siblings, comments from extended family members, and the parents' perceptions about whether a child speaks/understands one language better than another." One staff noted that, "Every effort is made to familiarize culturally diverse children and families with the assessment process," and to make compromises or allowances for any significant cultural aspect of assessment. Other creative adaptations mentioned by the staff included observing non-linguistic tasks, such as drawing, coloring and play.

On the other hand, some staff didn't think that cultural differences were necessarily an issue in assessment. One interventionist stated that the children's individual needs, regardless of culture, were addressed during the diagnostic process. One early interventionist even remarked that, "No consideration is given to cultural diversity during my assessment procedure."

Considerations For Involvement With Culturally Diverse Families

Family's First Language

As with the Program Directors, the staff were asked how often their programs provided services to families in their first language. The Likert scale response format was used with Never, scored as 0, Occasionally, scored as 2, and Usually, scored as 4. The questionnaire items and percentage of staff indicating each response is outlined in Table 26.

The results shown in Table 26 agree quite closely with those provided by the Program Directors. As Table 26 indicates, 77.3% of the staff provided services to families in their first language, to some extent, with close to one quarter (24.5%) of the staff Usually doing so, and 17.0% of the staff Never doing so. Unlike the responses of the Program Directors, however, the staff indicated that paraprofessionals from the families' cultures were used more frequently than were bilingual staff. Close to 70% (69.5%) of the staff indicated that their programs used paraprofessionals from the families culture some of the time (23.7% Never did so), compared with 53.5% of the same programs using bilingual staff to provide services to families in their first language (37.9% responded Never). One staff member commented about the use of paraprofessionals in her program: "We have tried to provide our services by recognizing the different cultures within our community so part of our hiring criteria was based on (the community's) cultural backgrounds." Relatives and friends were also used by 74.2% of the staff's programs to provide services in the native languages of families, the same percentage as reported by Program Directors. The staff responded, however, that only 22.4% of their programs used relatives and friends as translators more than Occasionally; 15.5% of the programs Never did. Moreover, one staff member emphasized the use of family advocates by all families, not only in terms of translation.

A total family involvement score was calculated by adding the responses for the four items, for a total out of 16. The average for the 63 staff was 5.6, (almost identical to the average from the Program Directors of 5.2) with a range from 0 to 15. Again, it should be noted that a higher score does not necessarily indicate more culturally competent services, since the provision of services in the first language of culturally and linguistically diverse families through any of the above categories of translators (bilingual

Table 26

Summary of Staff Responses to Family Involvement Items

Questionnaire Item	Response	Percent of Staff (number of staff)
1. Provides services to families in their first language	Don't know/not applicable	5.7% (3)
	Never (0)	17.0% (9)
	(1)	24.5% (13)
	Occasionally (2)	22.6% (12)
	(3)	5.7% (3)
	Usually (4)	24.5% (13)
	Number of staff responding	53
2. via bilingual staff	Don't know/not applicable	8.6% (5)
	Never (0)	37.9% (22)
	(1)	13.8% (8)
	Occasionally (2)	15.5% (9)
	(3)	5.2% (3)
	Usually (4)	19.0% (11)
	Number of staff responding	58
3. via a paraprofessional from the family's culture	Don't know/not applicable	6.8% (4)
	Never (0)	23.7% (14)
	(1)	22.0% (13)
	Occasionally (2)	28.8% (17)
	(3)	11.9% (7)
	Usually (4)	6.8% (4)
	Number of staff responding	59
4. via a friend or relative of the family	Don't know/not applicable	10.3% (6)
	Never (0)	15.5% (9)
	(1)	27.6% (16)
	Occasionally (2)	24.1% (14)
	(3)	15.5% (9)
	Usually (4)	6.9% (4)
	Number of staff responding	58
Total family involvement score (out of 16)	Range	0-15
	Mean	5.62

staff, paraprofessionals, friends or relatives of the family) may preclude the use of translators in the other categories.

A few additional adaptations to increase accurate communication between early interventionists and families were suggested by staff members including discussing any written material verbally with families whose comprehension of written English may be low, and requesting assistance from a community or social worker who knows and speaks the same language as the family. Other staff commented that interpretative services may be difficult to provide due to financial constraints or resistance from some of the families.

Cross-cultural Differences

Consideration of the families' perspective. Early intervention staff were asked to report how often they considered the perspective of culturally diverse families in a number of areas. Once more the Likert type scale response format was used. The scale was scored as follows: Never or Don't know/Not applicable = 0, Occasionally = 2, and Usually = 4. The areas for consideration and the staff's responses are given in Table 27. Sixty-four of the 65 staff completed this section of the questionnaire. A total consideration of cultural differences score was derived by adding up the scores on each of the 16 items for a possible total of 64. The scores ranged from 0 to 64, and the average score was 43.2. This score was very similar to the average total consideration score achieved by the Program Directors of 44.6.

In general, the staff often considered the perspective of culturally diverse families, as shown by the responses to the individual items and the relatively high average consideration of cross cultural differences score. For almost all of the items, between 32.3% and 49.2% of the staff Usually considered the families' perspectives, with another significant portion of staff considering the families' perspectives more than Occasionally and slightly less than Usually (3). As with the Program Directors, few of the staff responded Never to the questionnaire items in this section. Although it seems that staff members frequently considered the families' perspectives in various areas, they discussed these issues slightly less frequently. Only 15.9% of the staff Usually discussed with culturally diverse families their values, beliefs and practices in the areas outlined in this section. Still, only two (3.2%) of the staff Never discussed these issues with families, leaving 76.2% of the staff communicating with culturally diverse families on these issues more often than Never, if slightly less than Usually.

The comments made by the staff reflect their concern and consideration of the perspectives of culturally diverse families. One staff member remarked, "In my work with parents, care is taken to ensure that their cultural backgrounds are taken into account (i.e.,

Table 27

Summary of Consideration of Cultural Differences as Reported by Staff

Area in which staff members consider the perspective of culturally diverse families:	Response	Percent of Staff (number of staff)
1. interpretation of what a disability is	Don't know/not applicable	9.4% (6)
	Never (0)	6.3% (4)
	(1)	6.3% (4)
	Occasionally (2)	25.0% (16)
	(3)	12.5% (8)
	Usually (4)	40.6% (26)
	Number of staff responding	64
2. interpretation of causes of disability	Don't know/not applicable	10.9% (7)
	Never (0)	4.7% (3)
	(1)	9.4% (6)
	Occasionally (2)	23.4% (15)
	(3)	14.1% (9)
	Usually (4)	37.5% (24)
	Number of staff responding	64
3. concepts of family structure and role identity	Don't know/not applicable	7.8% (5)
	Never (0)	1.6% (1)
	(1)	4.7% (3)
	Occasionally (2)	15.6% (10)
	(3)	29.7% (19)
	Usually (4)	40.6% (26)
	Number of staff responding	64
4. styles of parenting or parent-child interaction	Don't know/not applicable	3.2% (2)
	Never (0)	1.6% (1)
	(1)	7.9% (5)
	Occasionally (2)	1.6% (1)
	(3)	36.5% (23)
	Usually (4)	49.2% (31)
	Number of staff responding	63
5. views of children and childrearing	Don't know/not applicable	3.2% (2)
	Never (0)	1.6% (1)
	(1)	8.1% (5)
	Occasionally (2)	8.1% (5)
	(3)	33.9% (21)
	Usually (4)	45.2% (28)
	Number of staff responding	62

Table 27 continued

Area in which staff members consider the perspective of culturally diverse families:	Response	Percent of Staff (number of staff)
6. goals of education	Don't know/not applicable	7.9% (5)
	Never (0)	3.2% (2)
	(1)	4.8% (3)
	Occasionally (2)	23.8% (15)
	(3)	20.6% (13)
	Usually (4)	39.7% (25)
	Number of staff responding	63
7. styles of communication and social interaction	Don't know/not applicable	3.1% (2)
	Never (0)	0.0% (0)
	(1)	7.8% (5)
	Occasionally (2)	17.2% (11)
	(3)	25.0% (16)
	Usually (4)	46.9% (30)
	Number of staff responding	64
8. expectations of children's behavior	Don't know/not applicable	3.1% (2)
	Never (0)	3.1% (2)
	(1)	6.3% (4)
	Occasionally (2)	15.6% (10)
	(3)	29.7% (19)
	Usually (4)	42.2% (27)
	Number of staff responding	64
9. preferred treatment for health problems	Don't know/not applicable	11.3% (6)
	Never (0)	6.5% (0)
	(1)	6.5% (1)
	Occasionally (2)	25.8% (10)
	(3)	17.7% (6)
	Usually (4)	32.3% (8)
	Number of staff responding	62
10. preferred intervention for disability	Don't know/not applicable	9.5% (6)
	Never (0)	3.2% (2)
	(1)	7.9% (5)
	Occasionally (2)	15.9% (10)
	(3)	22.2% (14)
	Usually (4)	41.3% (26)
	Number of staff responding	63
11. views of change and intervention	Don't know/not applicable	9.5% (6)
	Never (0)	4.8% (3)
	(1)	7.9% (5)
	Occasionally (2)	19.0% (12)
	(3)	22.2% (14)
	Usually (4)	36.5% (23)
	Number of staff responding	63

Table 27 continued

Area in which staff members consider the perspective of culturally diverse families:	Response	Percent of Staff (number of staff)
12. views of professional's role	Don't know/not applicable	9.5% (6)
	Never (0)	4.8% (3)
	(1)	4.8% (3)
	Occasionally (2)	17.5% (11)
	(3)	25.4% (16)
	Usually (4)	38.1% (24)
	Number of staff responding	63
13. sense of time	Don't know/not applicable	3.1% (2)
	Never (0)	9.4% (6)
	(1)	9.4% (6)
	Occasionally (2)	21.9% (14)
	(3)	18.8% (12)
	Usually (4)	37.5% (24)
	Number of staff responding	64
14. willingness to seek help	Don't know/not applicable	6.3% (4)
	Never (0)	1.6% (1)
	(1)	9.4% (6)
	Occasionally (2)	15.6% (10)
	(3)	32.8% (21)
	Usually (4)	34.4% (22)
	Number of staff responding	64
15. structures for seeking assistance	Don't know/not applicable	9.4% (6)
	Never (0)	3.1% (2)
	(1)	6.3% (4)
	Occasionally (2)	15.6% (10)
	(3)	28.1% (18)
	Usually (4)	37.5% (24)
	Number of staff responding	64
16. How often do you discuss with a family from a different culture, the family's values, beliefs or practices in the above areas?	Don't know/not applicable	4.8% (3)
	Never (0)	3.2% (2)
	(1)	12.7% (8)
	Occasionally (2)	39.7% (25)
	(3)	23.8% (15)
	Usually (4)	15.9% (10)
	Number of staff responding	63
Total consideration of cultural differences score (out of 64)	Range	0-64
	Mean	43.20

differing views of health, medical, and disease issues)." Other comments illustrated the desire of early intervention staff to provide family-focused services, considering the individual needs of children and families, without particular attention to cultural differences. For instance, one staff member stated that although she didn't really treat culturally diverse families any differently, she treated everyone one with respect and dignity, not challenging parents' beliefs etc., since they wanted what was best with their child and were included as part of the team of people helping their child. Similarly another staff commented, "We are a family-focused program and adapt as much as we can to meet individual child and family needs. When we are aware of differences, we accommodate to them." She also commented, "Unfortunately, I think we are not as aware, always, as we should be." Another staff member may have perceived some of the factors limiting the staff's awareness of cultural differences: "(We) can only find out as much as families are willing to share; sometimes (we're) not sure what questions to ask and some families are very protective of their privacy."

Potential cultural differences in perspective. Early intervention staff were also requested to report the frequency with which their perspectives differed from those of culturally diverse families in the same areas. The same Likert type scale was used and was scored as above. Table 28 presents the areas of potential difference and the staff members' response patterns. Sixty-four of the 65 staff completed this section of the questionnaire.

A total score for this section was calculated by adding the responses on the 15 items, for a possible score of 60. The higher the score, the more often the perspectives of the staff differed from the perspectives of culturally diverse families in the various areas. The scores ranged from 0 to 58, with a mean of 29.0, indicating a moderate degree of dissonance between the perspectives of staff and families. Again, the average difference in perspective score was very similar to the one obtained from the responses of the Program Directors. The response patterns, shown in Table 28, also indicate a moderate degree of difference in perspectives between staff and families, and closely matched those reported by the Program Directors. There were three items, however, where staff reported slightly higher frequencies of difference than did the Program Directors. Close to 11% of staff responded that their perspectives Usually differed from those of culturally diverse families in the area of preferred treatment for health problems, compared to just over 3% of the Directors. Moreover, 12.5% of staff responded that their views of change and intervention were Usually different from those of culturally diverse families; whereas none of the Program Directors responded Usually to this item. Similarly, 7.9% of early intervention staff Usually held different views of a professional's role than did families

Table 28

Summary of Responses by Staff Regarding Potential Cultural Differences in Perspective

Area of potential difference in perspective between staff and culturally diverse families	Response	Percent of Staff (number of staff)
1. interpretation of what a disability is	Don't know/not applicable	19.0% (12)
	Never (0)	6.3% (4)
	(1)	11.1% (7)
	Occasionally (2)	31.7% (20)
	(3)	25.4% (16)
	Usually (4)	6.3% (4)
	Number of staff responding	63
2. interpretation of causes of disability	Don't know/not applicable	17.5% (11)
	Never (0)	9.5% (6)
	(1)	12.7% (8)
	Occasionally (2)	30.2% (19)
	(3)	23.8% (15)
	Usually (4)	6.3% (4)
	Number of staff responding	63
3. concepts of family structure and role identity	Don't know/not applicable	11.1% (7)
	Never (0)	4.8% (3)
	(1)	11.1% (7)
	Occasionally (2)	46.0% (29)
	(3)	17.5% (11)
	Usually (4)	9.5% (6)
	Number of staff responding	63
4. styles of parenting or parent-child interaction	Don't know/not applicable	6.3% (4)
	Never (0)	4.8% (3)
	(1)	12.7% (8)
	Occasionally (2)	42.9% (27)
	(3)	22.2% (14)
	Usually (4)	11.1% (7)
	Number of staff responding	63
5. views of children and childrearing	Don't know/not applicable	7.9% (5)
	Never (0)	4.8% (3)
	(1)	15.9% (10)
	Occasionally (2)	39.7% (25)
	(3)	22.2% (14)
	Usually (4)	9.5% (6)
	Number of staff responding	63

Table 28 continued

Area of potential difference in perspective between staff and culturally diverse families	Response	Percent of Staff (number of staff)
6. goals of education	Don't know/not applicable	12.7% (8)
	Never (0)	6.3% (4)
	(1)	22.2% (14)
	Occasionally (2)	38.1% (24)
	(3)	15.9% (10)
	Usually (4)	4.8% (3)
	Number of staff responding	63
7. styles of communication and social interaction	Don't know/not applicable	4.8% (3)
	Never (0)	4.8% (3)
	(1)	19.0% (12)
	Occasionally (2)	31.7% (20)
	(3)	27.0% (17)
	Usually (4)	12.7% (8)
	Number of staff responding	63
8. expectations of children's behavior	Don't know/not applicable	4.7% (3)
	Never (0)	6.3% (4)
	(1)	10.9% (7)
	Occasionally (2)	32.8% (21)
	(3)	32.8% (21)
	Usually (4)	12.5% (8)
	Number of staff responding	64
9. preferred treatment for health problems	Don't know/not applicable	15.6% (10)
	Never (0)	9.4% (6)
	(1)	15.6% (10)
	Occasionally (2)	31.3% (20)
	(3)	17.2% (11)
	Usually (4)	10.9% (7)
	Number of staff responding	64
10. preferred intervention for disability	Don't know/not applicable	17.2% (11)
	Never (0)	6.3% (4)
	(1)	21.9% (14)
	Occasionally (2)	23.4% (15)
	(3)	17.2% (11)
	Usually (4)	14.1% (9)
	Number of staff responding	64
11. views of change and intervention	Don't know/not applicable	14.1% (9)
	Never (0)	9.4% (6)
	(1)	21.9% (14)
	Occasionally (2)	25.0% (16)
	(3)	17.2% (11)
	Usually (4)	12.5% (8)
	Number of staff responding	64

Table 28 continued

Area of potential difference in perspective between staff and culturally diverse families	Response	Percent of Staff (number of staff)
12. views of professional's role	Don't know/not applicable	20.6% (13)
	Never (0)	3.2% (2)
	(1)	15.9% (10)
	Occasionally (2)	41.3% (26)
	(3)	11.1% (7)
	Usually (4)	7.9% (5)
	Number of staff responding	63
13. sense of time	Don't know/not applicable	11.1% (7)
	Never (0)	11.1% (7)
	(1)	17.5% (11)
	Occasionally (2)	36.5% (23)
	(3)	15.9% (10)
	Usually (4)	7.9% (5)
	Number of staff responding	63
14. willingness to seek help	Don't know/not applicable	10.9% (7)
	Never (0)	3.1% (2)
	(1)	20.3% (13)
	Occasionally (2)	37.5% (24)
	(3)	15.6% (10)
	Usually (4)	12.5% (8)
	Number of staff responding	64
15. structures for seeking assistance	Don't know/not applicable	14.1% (9)
	Never (0)	4.7% (3)
	(1)	18.8% (12)
	Occasionally (2)	31.3% (20)
	(3)	17.2% (11)
	Usually (4)	14.1% (9)
	Number of staff responding	64
Total difference in perspective score (out of 60)	Range	0-58
	Mean	29.02

from diverse cultural backgrounds; none of the Program Directors indicated that they Usually did.

The staff also described areas in which they had experienced differences in perspective with culturally diverse families. One staff member mentioned that, "There has often been a lot of differences with other cultures on expectations of children's behavior and developmental milestones." Another staff member found that in addition to differences in the sense of time, families from diverse cultural backgrounds also differed in their concepts of commitment to a scheduled appointment and of who should wait if the other party is late. Moreover, a staff member stated, "Some parents from different cultural backgrounds have trouble accepting the (fact that their child has a) disability and it is often worse when the child is male." Other staff commented that differences in perspective between staff and families may not always be culturally based, but may be rooted in individual perspectives, and that when there are differences about the treatment of health problems or discipline methods that the needs of the individual child come first.

Another set of comments focused on the area of staff biases. For instance, one staff member stated that her biases or even prejudices may have affected how she perceived the responses of those from other cultures, pertaining to certain aspects of their child's education. Another staff commented, "I have found that although I may be aware of a family having a different cultural perspective, I find it extremely difficult to not to try and *mold* them towards mine. I will often express to them what I feel and allow them to express how they feel- just so we are operating based on different beliefs and cultural values/experiences." On the other hand, another staff realized, "I often have a differing viewpoint based on my professional knowledge and cultural background than a parent from another ethnic/cultural background, but this does not mean it interferes with my ability to understand their values and work with them in an appropriate matter."

Acculturation

Staff members were also asked to indicate how often they assessed the level of acculturation of culturally diverse families using a Likert type scale which was scored as Never or Don't know/Not applicable = 0, Occasionally = 2, and Usually =4. Fifty-nine of the 65 staff responded to this item. Staff reported that they assessed acculturation more often than did the Program Directors. Slightly more than 15% (15.3%) of staff Usually assessed a family's level of acculturation, compared to 3.1% of the programs reported by Program Directors. Close to 17% (16.9%) of staff Occasionally assessed acculturation, with a further 5.1% doing so slightly more than Occasionally (4 on the scale), and 16.9% assessing acculturation more than Never but less than Occasionally. Even though staff indicated a higher frequency of acculturation assessment than did Program Directors, still 27.1% of the staff Never assessed the level of acculturation of culturally diverse families.

Thirty of the early intervention staff also described the methods they used to assess acculturation. The methods of assessing acculturation and the number of programs using them are given in Table 29. An additional three staff members reported that they didn't assess acculturation. Besides methods of assessing acculturation, the staff were asked to describe characteristics that they used as indicators of potential cultural differences. As with the Program Directors, they were given a multiple-choice response format with an opportunity to describe other indicators. The choices given were a) speak different language, b) family identifies different cultural affiliation, and c) difference in appearance (clothing, skin color). Sixty of the 65 staff completed this item. Sixty-five percent indicated that all three choices were factors in indicating potential cultural differences. Speaking a different language was chosen by 5% of the staff; and family identifying a different cultural affiliation by 3.3%. A further 11.7% of the staff indicated speaking a different language and the family's identifying a different cultural affiliation as potential indicators, 10% of staff chose speaking a different language and difference in appearance, and 5% of staff responded that the family identifying a different cultural affiliation and difference in appearance were characteristics indicating potential cultural differences. Eight of the staff gave additional indicators, which are given in Table 30. As can be seen in Table 30, a wide variety of characteristics are used by early interventionists to indicate potential cultural differences, ranging from a family's religious or spiritual affiliation to artwork in a family's home.

In summary staff assessed a family's level of acculturation more often than reported by Program Directors, and utilized a wide variety of characteristics or factors to indicate potential cultural differences with families.

Index of Adaptation Scores

Scores from the different sections of the questionnaire, with the exception of the section on differing perspectives, were added together to produce a total Index of Adaptation Score, out of 148. The section on differing perspectives was not included because responses for that section did not indicate whether adaptations were made for children and families from diverse cultural and/or linguistic backgrounds. Once again, these scores were converted to percentages so that the scores for home-based programs (out of 120), which did not include the section on instruction, would be comparable to the other scores. The average Index of Adaptation Percentage Score for the 64 staff was 51.4% (comparable to the average Index of Adaptation Percentage Score of 49.4%, achieved by the Program Directors). The range was from 0 to 90%.

Table 29
Methods of Assessing Acculturation as Reported by Staff

Method	Number of staff
Interview or discussion with families	16
Informally	10
Observation of families	8
Home visits	5
Comparing family's style with the mainstream culture	2
Considered when developing family goals	2
Staff meetings/discussion/debriefings	1
Comparison with past experiences with culturally diverse families	1
Consider families' view of, or participation in the community, society and systems	1
Parent questionnaires and referral source	1

Table 30
Indicators of Potential Cultural Differences

Characteristic or factor	Number of staff
Religious or spiritual affiliation	6
Gender roles/favoritism toward males	3
Observation of interactions/behavior with children and family members	3
Restriction in observation of holidays	2
Family's history/background experience	2
Family's comments re: food, customs, beliefs or traditions	1
Referral source or form indicates culture	1
Food restrictions	1
Family's background experience/history	1
Different social customs or mannerisms	1
Where a family lives (e.g., reserve)	1
Family's beliefs	1
Cultural idiosyncrasies (e.g., response to illness or cold weather)	1
Attitude towards time	1
Stress on high academic expectations	1
Name (first of family)	1
Art work in family's home	1
Family's conviction of power of spiritual beliefs to heal impairment	1
Extended family	1
Feeding practices	1
Discussions with family	1
Families ability to understand and speak English	1

Effect of Cultural Composition of Children Served by Staff

As with the Program Directors, the relationship between the cultural composition of the children being served and the number of programmatic adaptations made for culturally diverse children and families was investigated. The percentage of culturally diverse children involved in each of the staff's classroom or part of the staff's caseload, was calculated, as were the percentages of children in each classroom or part of each caseload whose families had been in Canada less than five years, whose families usually spoke a language other than English, and whose families had basic beliefs and practices different from those of mainstream Canadian culture. Correlation coefficients were calculated between these percentages and the Index of Adaptation Percentage Scores to determine if there was a relationship between the cultural composition of those children served by staff and the frequency or number of cultural adaptations made. Two of these correlation coefficients were statistically significant at an alpha level of .05. There were moderate positive relationships between the Index of Adaptation Percentage Scores and the percentage of culturally diverse children from families that usually spoke a language other than English ($r=.30$, $p=0.03$), and the percentage of culturally diverse children whose families had basic beliefs and practices different from those of mainstream Canadian culture ($r=.28$, $p=.03$). These results indicate that staff whose classrooms or caseloads include culturally diverse children whose families usually spoke a language other than English, or whose families had beliefs of practices that differed from those of mainstream Canadians, were also making cultural adaptations to better meet the needs of these children.

Total percentage of culturally diverse children. To further investigate the relationship between the cultural composition of staff's classrooms or caseloads and programmatic adaptations, the programs were grouped according to percentage of culturally diverse children involved. A number of one-way analyses of variance (ANOVAs) were performed to determine if the percentages of culturally diverse children had an effect on the areas surveyed (instruction, assessment, family involvement, consideration of cultural differences, and potential differences in perspective) or on the Index of Adaptation Percentage Score. The ANOVAs performed with the total percentage of children from culturally diverse backgrounds as the independent variable did not produce significant results at an alpha level of .05. Thus, it seems that the percentage of culturally diverse children has no effect on the type or frequency of adaptations made by staff in any of the areas surveyed.

Percentage of children whose families were recent immigrants. A number of ANOVAs were calculated to determine the relationship between the percentage of culturally diverse children whose families had been in Canada less than five years and the number and frequency of adaptations in the areas surveyed by the questionnaire. Several of these yielded statistically significant results. As Table 31 indicates, a relationship was found between the percentage of culturally diverse children of recent immigrants, divided into three groups, and the total consideration of cultural differences scores achieved by staff ($F(2,56) = 4.07$; $p = .02$). Post-hoc analysis using the Student-Newman-Keuls test indicated significant differences between the mean score achieved by the group of staff with no culturally diverse children of recent immigrants as part of their classroom or caseload (group 1, $M = 37.9$) and the mean score of the group of staff serving the highest percentage (10% or greater) of children from families who had been in Canada less than 5 years (group 3, $M = 49.6$). These results indicate that staff who serve children of recent immigrants consider the families' perspectives in areas pertaining to early intervention either in more areas or more often, than do staff who do not have culturally diverse children of recent immigrants as part of their caseload or classroom. The Scheffé test, which is more conservative than the Student-Newman-Keuls test did not reveal any statistically significant differences between the group means, at an alpha level of .05.

The ANOVA calculated between the total difference in perspective scores and the percentage of children from families who had been in Canada less than 5 years was statistically significant ($F(2,53) = 3.46$; $p = .04$, see Table 32), but post-hoc analysis using the Student-Newman-Keuls test and the Scheffé test failed to reveal any significant differences between the group means. In terms of total Index of Adaptation Scores, the percentage of children of recent immigrants served by early intervention staff seemed to have an effect, as demonstrated in Table 33 ($F(2,56) = 3.73$; $p = .03$). Post-hoc analysis using the Student-Newman-Keuls test revealed significant differences between the mean total Index of Adaptation percentage scores of those staff who had no children of recent immigrants as part of their case load or classroom ($M = 45.0\%$) and the mean percentage score of those staff serving the highest percentage (10% or greater) of children of recent immigrant families ($M = 59.6\%$). The more conservative Scheffé test did not yield any significant differences between group means Thus, it seems that those staff serving the highest percentage of children from families who had been in Canada less than 5 years were making more cultural adaptations, more often than were those staff who did not serve children of recent immigrants.

Table 31

Analysis of Variance and Student-Neuman-Keuls Test Results -Total Consideration of Cultural Differences Scores by Percentage of Children from Families Who Had Been in Canada Less than 5 Years

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Children	2195.6255	2	1097.8128	4.0726	.0223
Effects not due to Percentage of Children	15095.5609	56	269.5636		
Total	17291.1864	58			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 1	Grp 3	Grp 2
37.9231	Group 1 (lowest %)			
49.5833	Group 3 (highest %)	*		
52.3750	Group 2			

Table 32

Analysis of Variance Results -Total Difference in Perspective Scores by Percentage of Children from Families Who Had Been in Canada Less than 5 Years

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Children	1059.5397	2	529.7698	3.4639	.0386
Effects not due to Percentage of Children	8105.8889	53	152.9413		
Total	9165.4286	55			

Table 33

Analysis of Variance and Student-Neuman-Keuls Test Results -Total Index of Adaptation Percentage Scores by Percentage of Children from Families Who Had Been in Canada Less than 5 Years

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Children	0.2985	2	0.1492	3.7261	.0303
Effects not due to Percentage of Children	2.2429	56	0.0401		
Total	2.5414	58			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 1	Grp 3	Grp 2
0.4495	Group 1 (lowest %)			
0.5963	Group 3 (highest %)	*		
0.6047	Group 2			

Percentage of culturally diverse children whose families usually spoke a language other than English. An ANOVA revealed a relationship between the total Index of Adaptation Percentage Scores and the percentage of children from families who usually spoke a language other than English (F(2,53) = 3.52; p = .04). The results are shown in Table 34. Further analysis using the Student-Neuman-Keuls Test revealed significant differences between the mean total Index of Adaptation Percentage Scores of group 1 (with the lowest percentage of culturally diverse children from families who usually spoke a language other than English, less than 10% of their classroom or caseload, M = 45.0%) and group 3 (with the highest percentage, over 25%, M = 62.8%). Once again the Scheffé test did not reveal any significant differences between group means. It seems, therefore, that those staff serving a higher percentage of children with possible language differences are making more cultural adaptations more often, than those who don't serve many children from linguistically diverse families.

In addition, when the staff were divided into two groups, based on the percentage of culturally diverse children from families who usually spoke a language other than English, differences were found in the means of the consideration of cultural differences scores and the total Index of Adaptation Percentage scores. Those staff serving a higher percentage (>10% of their classroom or caseload) of children whose families usually spoke a language other than English achieved significantly higher total consideration of cultural differences scores (M = 49.3) than those staff serving a lower percentage (<10%)of these culturally diverse children (M = 38.8; t(53) = -2.39, p =.02). Similarly, those staff serving a higher percentage of children from linguistically diverse backgrounds attained significantly higher total Index of Adaptation Percentage scores (M = 58.3%), than staff who served a lower percentage of children from linguistically diverse backgrounds (M = 45.0%; t(54) = -2.49, p =.02). Thus, again it seems that those staff serving a higher percentage of children from families who usually spoke a language other than English considered the perspective of culturally diverse families more often and in more areas, and made more cultural adaptations more often in all the areas surveyed, than did staff who served only a low percentage of linguistically different students.

Percentage of culturally diverse children whose families had basic beliefs and practices different from those of mainstream Canadian culture. The ANOVAs calculated between the total scores from the various sections of the questionnaire were not found to be statistically significant. When the staff were arranged into two groups based on the percentage of culturally diverse children whose families held different basic beliefs than those of mainstream Canadians, significant differences were found in the average total Index of Adaptation scores between the group of staff who served a low percentage of

Table 34

Analysis of Variance and Student-Neuman-Keuls Test Results -Total Index of Adaptation Percentage Scores by Percentage of Children from Families Who Usually Spoke a Language Other than English

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Percentage of Children	0.2777	2	0.1389	3.5157	.0368
Effects not due to Percentage of Children	2.0935	53	0.0395		
Total	2.3712	55			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Group (based on %)	Grp 1	Grp 2	Grp 3
0.4502	Group 1 (lowest %)			
0.5528	Group 2			
0.6281	Group 3 (highest %)	*		

this group of culturally diverse children (less than 10% of their classroom or caseload, M = 46.3%) and the average total Index of Adaptation scores of those staff serving a higher percentage (10% or greater) of culturally diverse children from families with different basic beliefs than those of mainstream Canadians (M = 57.3%; t(50.86) = -2.17,p =.03). Therefore, staff serving a higher percentage of culturally diverse children from families whose basic beliefs and practices are different from those of mainstream Canadian culture, seem to be making more cultural adaptations, more often, than do those early intervention staff serving lower percentages of these same culturally diverse children.

Effect of Program Type

To investigate the relationship between program type and the number and frequency of cultural adaptations made in the various areas surveyed, several one-way analyses of variance were performed. As the results in Table 35 indicate, a relationship was found between program type and the total family involvement scores (F(2,59) = 4.96; p = .01). Further analysis with the Student-Neuman-Keuls and Scheffé tests revealed those staff who worked in programs with both a home- and centre-based component had significantly higher total family involvement scores (M = 7.5) than did those staff working in programs with only a centre-based component (M = 4.4). In addition, a relationship was also found between program type and total consideration of cultural differences scores (F(2,60) = 3.27; p = .04, see Table 36). The Student-Neuman-Keuls test revealed significant differences between the mean scores, with the staff from home-based programs achieving notably higher total consideration of cultural differences scores (M = 55.5) than did both the staff from centre-based (M = 42.4) and home- and centre-based programs (M = 40.6). The Scheffé test also revealed significant differences between the average total consideration of cultural differences scores of staff from home-based and home- and centre-based programs, with the staff from home-based programs scoring significantly higher (see Table 36).

Moreover, it also seems that program type had an effect on the total Index of Adaptation Scores achieved by early intervention staff (F(2,61) = 4.39; p = .02, see Table 37). As Table 37 indicates, post-hoc analysis using the Student-Neuman-Keuls test revealed that staff from home-based programs had significantly higher total Index of Adaptation Percentage scores (M = 67.8%) than did staff from home- and centre-based programs (M = 50.2%) and staff from centre-based early intervention programs (M = 46.3%). The Scheffé test confirmed that staff from home-based programs scored significantly higher than did staff from centre-based programs in terms of the total Index of Adaptation Percentage scores.

Table 35

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Total Family Involvement Scores by Program Type

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Program Type	150.1735	2	75.0867	4.9632	.0102
Effects not due to Program Type	892.6007	59	15.1288		
Total	1042.7742	61			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Program Type	H - B	C - B	H & C B
4.3000	Home-Based			
4.3600	Centre-Based			
7.4815	Home- and Centre-Based		*	

Scheffé Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Program Type	H - B	C - B	H & C B
4.3000	Home-Based			
4.3600	Centre-Based			
7.4815	Home- and Centre-Based		*	

Table 36

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Total Consideration of Cultural Differences Scores by Program Type

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Program Type	1706.1337	2	853.0668	3.2744	.0447
Effects not due to Program Type	15631.5171	60	260.5253		
Total	17337.6508	62			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Program Type	H&CB	C-B	H-B
40.5714	Home- and Centre-Based			
42.4400	Centre-Based			
55.5000	Home-Based	*	*	

Scheffé Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Program Type	H&CB	C-B	H-B
40.5714	Home- and Centre-Based			
42.4400	Centre-Based			
55.5000	Home-Based	*		

Table 37

Analysis of Variance and Student-Neuman-Keuls and Scheffé Test Results -Total Index of Adaptation Percentage Scores by Program Type

Analysis of Variance

Sources of Variance	Sum of Squares	DF	Mean Square	F	p
Main Effects of Program Type	0.3419	2	0.1709	4.3885	.0166
Effects not due to Program Type	2.3760	61	0.0390		
Total	2.7178	63			

Student-Neuman-Keuls Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Program Type	C - B	H & C B	H - B
0.4628	Centre-Based			
0.5024	Home- and Centre-Based			
0.6783	Home-Based	*	*	

Scheffé Test

Significance Level ≤ 0.05
(*) indicates significant differences between the means

Mean	Program Type	C - B	H & C B	H - B
0.4628	Centre-Based			
0.5024	Home- and Centre-Based			
0.6783	Home-Based	*		

In summary, the results indicate that program type has an effect on family involvement in regards to providing services to families in their first language, consideration of cultural differences and overall implementation of cultural adaptations. It seems that those programs with both a home- and centre-based component employ translators more frequently than do programs with only a centre-based component, although, higher scores in this area do not necessarily mean more culturally competent service, since the use of one type of translator may preclude the use of other types of translators. Moreover, it seems that staff from home-based early intervention programs consider the perspectives of culturally diverse families in more areas and with greater frequency, and provide more culturally competent service than do staff from centre-based and home- and centre-based programs.

Additional Adaptations and Recommendations by Staff

Besides the cultural adaptations included in the questionnaire, early intervention staff mentioned a number of other ways they have employed to provide more culturally competent service to culturally diverse families. Many of the adaptations focused on facilitating family involvement and communication. Some of the adaptations suggested were making the referral process more user friendly for culturally diverse families, having staff help parents fill-out the necessary forms, and providing time outside of regular working hours to be accessible to families and promote the program. One social worker maintained contact with families in a number of settings (home, program and community) and assisted families with pertinent issues besides the educational goals for their children. Staff also made efforts to facilitate effective communication with culturally diverse families. These efforts included using interpreters, and communication books for daily contact with families, especially since written communication may be helpful to families who don't usually speak English.

Other efforts to provide culturally competent early intervention centred on education about cultural differences. Staff received information pertinent to serving culturally diverse children and families, such as the cultural background of the family as it related to the child's handicap, via inservices, resource libraries, and meeting with members of the culturally diverse communities to learn about cultural significance/practices. For example, one program brought in people from the Aboriginal community to inform the staff about Native issues.

A third area where staff made adaptations to meet the needs of culturally diverse children was in the area of instruction. A number of staff mentioned that they incorporated themes in instruction that recognized cultural differences (e.g., culturally diverse holiday traditions), and encouraged family members to share cultural traditions in the classroom (e.g., music, food, clothing, celebrations). Moreover, one interventionist stated that she tried to use culturally sensitive language in the classroom (e.g., discussed *winter celebrations* rather than *Christmas*). Some other exceptional efforts being made by early intervention staff and programs were establishing a multicultural committee to collect resources and explore ways of better meeting the needs of families from other cultures, utilizing further information from the test publisher for use of the Diagnostic Inventory for Screening Children (DISC) with Native children, and pinpointing multiculturism and learning about other cultures as school/program goals. One program was even researching the community they served to determine if the families involved in the program were representative, in terms of cultural groups. If their research revealed that their program was not culturally representative of the community, they planned to find out why (e.g., lack of cultural sensitivity, differing cultural values).

As with the Program Directors, a number of the staff mentioned that meeting the individual needs of families would take into account any cultural differences. One staff member emphasized tailoring the program to individual families needs, by asking culturally diverse families what they wanted, and determining how to best serve them with the resources available, examining the individual strengths and needs of children and families, just as with other (mainstream Canadian) families. Another staff member commented, "I believe that our program attempts to serve the needs of its families on a very individual basis regardless of their ethnic origins." One staff member even stated, "I think everything possible is being done already."

Staff also made a number of recommendations to other early intervention programs to help them be more effective in their interactions with culturally diverse children and families. A number of these recommendations concerned increasing knowledge of a family's cultural background, and increasing personal awareness of the impact cultural differences can make on how a family interacts with professionals. As one staff member suggested, "Find out more about different cultures and the impact their beliefs and traditions have on learning and interactions among family members and with staff." In addition a number of recommendations focused on facilitating effective interactions with families. Several comments suggested that staff be less judgmental with different lifestyles (e.g., maintaining mother tongue at home, adhering to different childrearing practices), and respect the child and family for who they are, listening to the parents' priorities and concerns. One of the staff members suggested, "Ask the family lots of questions before you make assumptions. Like the diversity of western families, (with) families from other cultures (you) cannot assume (that they will) all be alike or even similar." Staff also suggested ways to demonstrate respect to culturally diverse families by not talking-down to parents or children, by establishing a mutual level of dialogue with respect to cultural differences, and by avoiding situations that may be intimidating to culturally diverse families. One staff member exhorted others to, "Be supportive of the parents no matter what."

Early intervention staff also made practical recommendations regarding culturally diverse children involved in their programs. These recommendations included being flexible about parental participation in school activities, having resources available to both staff and families, having aides and therapists from the same cultural backgrounds as culturally diverse families to work with family and enhance effectiveness, keeping an organized record keeping system to keep track of information from a number of sources (artwork, comments, parents etc.), and taking into account cultural differences when writing reports, for instance, in self help and social skills areas.

Finally, as with the Program Directors, some of the staff recommended meeting the individual needs of families: "If a program involves the family in every aspect of decision-making about the child's program and the family's chosen goals become the child's goals while they're in the program, the interactions are more likely to be effective."

Summary of Research Findings

The results of the survey indicate that both early intervention staff and early intervention programs (as described by the Program Directors) served a considerable percentage of children and families from culturally diverse backgrounds. The results also indicate that early intervention programs and staff made various types of programmatic adaptations, but the number of adaptations and the frequency of implementation were moderate, at only about half of what they could have been. It seems that those adaptations that were made frequently were those that would be embodied in a family-focused approach. There were no relationships found between the total percentage of culturally diverse children involved in the programs (or the staff's classrooms or caseloads), and the total scores achieved by the Program Directors or staff in the areas surveyed (instruction, assessment, staffing, policy, outreach, family involvement, consideration of cultural differences, or potential differences in perspective) or their total Index of Adaptation Percentage scores. There was, however, a statistically significant relationship found between the percentage of culturally diverse children from families whose beliefs and practices were different from those of mainstream Canadian culture and the total scores on the section of the questionnaire on policy mandating services to culturally diverse families. The group of Program Directors with the highest percentage of these children involved in their program scored higher on the policy subtest, indicating that their policies included a mandate to serve culturally or linguistically diverse children and families.

The results from the questionnaires completed by staff revealed additional relationships between the cultural composition of the children served and the type and number of cultural adaptations made. Statistically significant differences were found between those staff who served a higher percentage of culturally diverse children from families that had recently immigrated and those staff serving a lower percentage of these families. Staff serving a higher percentage of families who had been in Canada less than 5 years considered the families' perspectives more frequently and in more areas, and achieved higher total Index of Adaptation Percentage scores, indicating that they implemented more cultural adaptations with a greater frequency than their counterparts who served a lower percentage of these families. In addition, those staff who served a higher percentage of culturally diverse children whose families usually spoke a language other than English also provided more culturally competent early intervention, as indicated by the higher mean total Index of Adaptation Percentage score, than staff serving a lower percentage of linguistically diverse families. Moreover, as indicated by the correlation coefficient calculated, there seems to be a moderate positive relationship between the percentage of culturally diverse children from families with basic beliefs and practices different from those of mainstream Canadian culture and the number and frequency of programmatic adaptations made by early intervention staff. This relationship was examined by further analysis using a t-test. Staff serving a higher percentage of culturally diverse children from families whose practices and beliefs differed from those of mainstream Canadians appeared to be making significantly more cultural adaptations, more often, than did those early intervention staff serving lower percentages.

Program type (home, centre, and home- and centre-based) also had a bearing on the number and type of adaptations made to serve culturally diverse children and families. The results calculated from the responses of Program Directors indicated that those programs that had both a home- and centre-based component made significantly more adaptations to make the assessment process more appropriate for culturally diverse children and families, more often, than did centre-based early intervention programs. Similar results were found from the questionnaire responses given by early intervention staff. Home- and centre-based programs scored significantly higher than did centre-based programs on the family involvement section of the questionnaire, possibly indicating that home- and centre-based programs employed translators to work with linguistically diverse families more often than centre-based programs. The results provided by staff also indicated that staff from home-based early intervention programs considered the perspective of culturally diverse families, in more areas and with greater frequency, than did staff from home-and centre-based or centre-based programs. In addition, staff from home-based programs provided more culturally competent early intervention services, as indicated by their total Index of Adaptation Percentage scores, than did staff from centre-based or home- and centre-based programs.

Characteristics of early intervention staff also seemed to have an effect on cultural competency. Statistically significant relationships were found between the percentage of program staff who belonged to the same cultural or linguistic group as the culturally diverse children being served and the outreach efforts made by the program to include culturally diverse children and families. Significant relationships were also found between the percentage of staff who had experience in other cultures and outreach efforts; and between the percentage of staff who had training in cross cultural effectiveness to increase their awareness of the values, beliefs and practices of other cultures and the adaptations programs made to provide service in the first language of families. Moreover, those programs with the highest percentage of staff from the same diverse cultures as the children served scored significantly higher on the outreach section of the questionnaire, indicating that they were making more efforts to inform and include culturally diverse children and families. Those programs with the highest percentage of staff who had received experience or involvement in other cultures also achieved significantly higher outreach scores.

Programs having the highest percentage of staff with cross cultural experience or involvement provided more culturally competent early intervention, as indicated by their significantly higher average total Index of Adaptation Percentage scores. Programs with the highest percentage of staff who had received training to increase their awareness of the values, beliefs, and practices of other cultures also demonstrated significantly higher total Index of Adaptation Percentage scores and total Family involvement scores. These results indicate that those programs with the highest percentage of staff who were aware of the practices and beliefs of other cultures were more likely than those programs with lower percentages of culturally aware staff to have made efforts to provide services in the first language of families, and to have provided services that matched the needs of culturally diverse children and families.

In sum, early intervention programs and staff were providing a moderate degree of culturally competent services. Those programs and staff serving higher percentages of culturally diverse families who had recently immigrated to Canada, who usually spoke a language besides English, or who had basic beliefs and practices that differed from those of mainstream Canadians, made significantly more programmatic adaptations in a number of areas, than did programs and staff serving lower percentages of these families. In addition, programs with higher percentages of staff from the a) same cultural background as culturally diverse children, b) with cross-cultural experience or involvement, or c) who had had training to increases their awareness of the values, beliefs and practices of other cultures, also provided more culturally competent service overall, with significantly more efforts to provide services to the families in their first language, and to inform and include culturally diverse families in their programs, than did programs with lower percentages of staff with these characteristics. However, the average Index of Adaptation Percentage scores for both early intervention programs and staff were only around 50%, indicating that more programmatic adaptations could be made to provide early intervention services that better meet the needs of culturally diverse children families.

CHAPTER 5. CONCLUSIONS AND RECOMMENDATIONS

> Achieving cross-cultural competence requires that we lower our defenses, take risks, and practice behaviors that may feel unfamiliar and uncomfortable. It requires a flexible mind, an open heart, and a willingness to accept alternative perspectives. It may mean setting aside some beliefs that are cherished to make room for others whose value is unknown; and it may mean changing what we think, what we say, and how we behave. But there are rewards- the rewards of assisting families who need someone who can help them bridge two disparate cultures as well as the reward of knowing more about ourselves and becoming more effective interpersonally" (Lynch, 1990a, p.35)

Summary and Conclusions

In our increasingly multicultural society, there is a heightened need for early intervention services that match the needs of the culturally diverse families they serve. Culturally competent early intervention programs honor and respect the beliefs, attitudes, behaviors and interpersonal styles of culturally diverse families (Roberts, Barclay-McLaughlin, Cleveland, Colston, Malach, Mulvey, Rodriguez, Thomas, & Yonemitsu, 1990a). Moreover culturally competent early intervention programs go beyond culturally sensitive attitudes, making adaptations in a number of areas pertinent to providing services to children and families from culturally diverse backgrounds.

As indicated by the literature, culturally competent early intervention encompasses adaptations in a number of areas including instruction, assessment, hiring and training of staff, outreach and program policy. In addition, cultural competency entails considerations for increasing family involvement, identifying areas of potential dissonance with culturally diverse families, as well as determining families' levels of acculturation. Despite the importance of each of these areas in meeting the needs of culturally diverse children and families, there have been few empirical studies to determine if these adaptations are being implemented. With few exceptions, most of the literature in this area has presented professional opinions and descriptions of the experience of early interventionists.

The present study was intended to address the need for a more comprehensive investigation of culturally competent early intervention, evaluating numerous programs in the areas mentioned above, to ascertain if indeed there is a match between the services being provided and the needs of culturally diverse children and families. Thus, the purpose of this study was to determine if early intervention programs in an urban Alberta city were adapting the services they provided to meet the needs of culturally diverse children and families. This relationship between the population served, as perceived and reported by early intervention professionals, and the programmatic adaptations made in response to cultural or linguistic diversity was investigated via a descriptive survey study of early intervention programs in the Edmonton area. It was hoped that this questionnaire, developed by the researcher to probe the areas important to culturally competent practice, would measure the extent to which early intervention programs were responsive to the cultural diversity of children and families. The study also examined a number of secondary areas, including the effect of program type (home-based, centre-based, and home- and centre-based), the effect of staff characteristics (bilingual/bicultural, having had experience in other cultures, trained in cross cultural effectiveness), and the possibly moderating effects of the levels of acculturation of culturally diverse families' upon culturally competent services.

Effect of Cultural Composition

The study findings verified that early intervention programs served a considerable number of culturally diverse children and families. For instance, 81.5% of the programs had at least one child from Aboriginal/First Nations background. Moreover, the average percentage of culturally diverse children involved in each program was 26.2%. The average percentages of children from families who had been in Canada less than five years, whose families usually spoke a language other than English, or whose family had beliefs and practices that diverged from those of mainstream Canadians, were somewhat lower than the total percentage of culturally diverse children. In addition, the average total Index of Adaptation Percentage scores of approximately 50% indicated that early intervention programs and staff made a moderate number of programmatic adaptations at a moderate frequency to provide services that match the needs of culturally diverse children and families. Both the Program Directors and early intervention staff scored comparatively higher in the areas of assessment and consideration of the perspective of culturally diverse families, than in the other areas surveyed, suggesting that early interventionists are more likely to make those adaptations encompassed in a family-focused approach. This finding concurs with that of De Gangi, Wietlisbach, Poisson, Stein, and Royeen,(1994) who found that most early intervention professionals identified the need to probe culturally diverse families for more information on customs, childrearing practices and everyday routines, but only half of these professionals incorporated the families' customs and values into the Individualized Family Service Plan goals.

No relationship was found between the total percentage of culturally diverse children involved in early intervention programs (or the staff's classrooms or caseloads), and the number and frequency of programmatic adaptations made. When the characteristics of the culturally diverse children and families were investigated more closely, however, some statistically significant relationships were revealed. Those programs serving a higher percentage of children from families with basic beliefs and practices that were different from those of mainstream Canadians in the areas of education, health care, family structure and childrearing, were more likely to have a program policy that mandated serving culturally diverse children and families. It could be that the program policy attracts culturally diverse families with differing practices and beliefs. However, this result should be interpreted with caution because of the small number of questionnaire items relating to policy, and the small number of programs (n = 2) in the group serving a higher percentage of children in this category.

The results tabulated from the responses of early intervention staff revealed a statistically significant relationship between the percentage of culturally diverse children from families with beliefs and practices different from those of mainstream Canadian culture and the number and frequency of programmatic adaptations made. Staff serving a higher percentage of culturally diverse children from families with beliefs and practices that differed from those of mainstream Canadians also appeared to be making significantly more cultural adaptations, more often, than did those early intervention staff serving lower percentages of children from families with differing beliefs and practices. Similarly, statistically significant differences were found between those staff who served a higher percentage of culturally diverse children from families who had been in Canada less than five years and staff who served a lower percentage of children of recent immigrants. Those staff serving a higher percentage of these children made a greater number of cultural adaptations, more frequently, and considered the perspective of culturally diverse families' in significantly more areas, more often than their counterparts who served a lower percentage of children from recent immigrant families. Moreover, early intervention staff who served a higher percentage of children from families who usually spoke a language besides English also made significantly more cultural adaptations more often than did those staff serving a lower percentage of children from linguistically diverse families. Thus, while there is no relationship between the total percentage of culturally diverse children and families and the type and frequency of cultural adaptations reported by either Program Directors or staff, it seems that staff made cultural adaptations for children and families who may have had greater needs for culturally competent intervention due to recent immigration, linguistic differences, or a greater disparity between the beliefs and practices of the family and those of mainstream Canadian culture.

Moreover, those families who had been in Canada less than five years, who usually spoke a language other than English, or who had beliefs and practices different from those of mainstream Canadians may also have been more likely to have followed the traditions of their countries of origin and may have been less likely to have adopted the values and practices of the mainstream. Thus, a families' level of acculturation may have had a moderating effect on the relationship between the cultural diversity of children and families involved in early intervention and the cultural competency of the services they received, since the results indicated that staff that served higher percentages of these families were more likely to make more cultural adaptations. Further research in this area is needed to more thoroughly investigate the moderating effect of acculturation on cultural competency.

In addition, although the results from the Program Directors and staff were almost identical and the two groups achieved very similar averages in the areas surveyed as well as on the average Total Index of Adaptation Percentage scores, the analysis failed to reveal the same relationships between the cultural diversity of the children and families served and the type and frequency of cultural adaptations made to early intervention services. It seems that Program Directors were not as responsive to the characteristics of the culturally diverse families to the same extent that the staff were. This apparent difference in responsiveness may be due to the fact that Program Directors may have less direct contact with families than staff. Another possible explanation for the difference may be that the same relationships between the cultural composition of the children and families and cultural competence of services provided may exist, but that the lower number of Program Directors did not produce an effect large enough to be detected by the statistical analysis.

Effect of Program Type

The type of early intervention program also seemed to have an effect on the number and type of programmatic adaptations made by early intervention programs and staff. It seems that those programs that included a home-based component made more adaptations, more often, in the areas of a) assessment, b) providing services to families in their first language, and c)consideration for the perspective of culturally diverse families. Those staff from home-based early intervention programs provided more culturally competent early intervention services, than did staff from centre-based or home-and centre-based programs. It may be that since the home-based component of early intervention affords staff with more direct interaction with families, in a more intimate setting, that these staff have become more culturally competent in response to their exposure to the ideas, values and practices of culturally diverse families. On the other hand, the high amount of direct interaction with families may have necessitated the implementation of more cultural adaptations to facilitate effective interaction with culturally diverse families.

Effect of Program Staff

Staff with certain characteristics may be more likely to provide culturally competent early intervention services. Those programs with higher percentages of staff from the same cultural background as the children served seem to make more efforts to inform culturally diverse families about their services and include them in their programs. As well, programs with higher percentages of staff with cross-cultural experience or involvement also made greater outreach efforts to serve culturally diverse families and made more adaptations more often to be responsive to the needs of culturally diverse children and families, than programs with lower percentages of staff with cross cultural experience. Training in cross-cultural effectiveness to increase staff's awareness of the values, beliefs and practices of other cultures also seems to have a bearing on cultural competence, with those programs with the highest percentage of staff with this type of training making the highest number of adaptations to provide services in the first language of families, and providing more culturally competent early intervention overall. Thus, it seems that those staff who are bilingual/bicultural, who have had experience in other cultures, or who have taken some training in cross-cultural effectiveness may be more likely to provide services that match the needs of culturally diverse children and families.

Limitations

Although this study provided an overview of the culturally competent practices of early intervention programs in the Edmonton area, the results obtained may not be generalizable to early intervention programs in other parts of Alberta or Canada. For instance, the services provided by early intervention programs in rural areas, which are characteristically more culturally homogeneous, may not require the same level of cultural competency as services provided in metropolitan areas. Further research is needed to ascertain if similar results would be found in early intervention programs in other areas, perhaps on a provincial or national scale, and to determine if there is a difference in the level of cultural competency in urban and rural areas.

In addition, the results obtained from early intervention staff may not be generalizable to the rest of their peers. Although the results corresponded to those reported by Program Directors in regards to what early intervention programs were doing, it may be that those staff who completed the questionnaires were more likely to be serving culturally diverse children and families, and/or may have already been interested in the issue of cultural competence and were making adaptations to provide services to better meet the needs of culturally diverse children and families. Therefore, the staff respondents, being somewhat self-selected, may not have been representative of the early intervention staff in the Edmonton area.

Furthermore, the questionnaire only provided brief glimpses into the various areas encompassed in culturally competent early intervention. Additional research is needed to provide a more in-depth investigation into each of the different areas, especially into the appropriate use of specific assessment instruments with culturally diverse children, the use of translators, and the formation of program policy that mandating services to culturally or linguistically diverse children and families.

Another limitation of this study was that there was no way to determine if the Program Directors' or staff's perceptions of the population served, or the programmatic adaptations made were accurate. Again, additional research would be beneficial, to cross-validate the respondent's perceptions with those of the culturally diverse families being served, to determine if families were actually receiving services that corresponded to their needs.

Recommendations

Despite its limitations, this study provided a description of the extent of programmatic adaptations in response to the needs of culturally diverse children and families. The findings indicated that programs and staff are only providing a moderate level of culturally competent early intervention. The findings also identified those areas in which programs and staff were making adaptations and those areas in which more cultural adaptations were needed. Early intervention programs and staff made adaptations in the areas of instruction, assessment, and the consideration of the perspective of culturally diverse families more frequently than in the other areas surveyed. Early intervention programs could make greater efforts to mandate service to culturally diverse children and families, to include culturally diverse children and families in their program and inform the culturally diverse communities about the services they offer, and to measure the extent of acculturation of the culturally diverse families.

In addition, early intervention programs could have provided more culturally competent service by making efforts to hire staff who were from the same cultural backgrounds as the children and families they serve, or who have had experience or involvement in other cultures. Similarly, programs could have promoted cultural competence by providing staff with training in cross-cultural effectiveness to increase their awareness of the values, beliefs and practices of other cultures. A few exceptional programs were already making these efforts, but adaptations and efforts to better serve culturally diverse children and families should be the rule, not the exception.

The findings of this study also indicated a number of areas for further research. Besides those areas mentioned above, further research should also be conducted to more thoroughly examine the effects of program staff characteristics, program type (home- and/or centre-based), and the families' levels of acculturation. Similarly, the findings from this study should be cross-validated by researching the perspective of culturally diverse families involved in early intervention. In addition, it would be helpful to compare the percentage of families involved in early intervention from specific cultural groups to the percentage of that cultural group in the general population to determine if certain groups are being over or under represented in services. Finally, the items included in this questionnaire could be used as an inventory of cultural competence, following research providing sufficient evidence for the reliability and validity of the instrument.

In conclusion, this study revealed that early intervention programs and staff were providing only moderate levels of culturally competent service to culturally diverse children and families. Comparatively more adaptations were made in areas embodied in a family-focused approach. As one Program Director commented, "We are a family-focused intervention program no matter who the family might be- thus, basing our intervention on family's/child's needs and priorities. By being family-focused, I hope we automatically take into account cultural differences as they apply. I am sure there are measures we could be taking to provide better service to our culturally diverse families..." The findings from this study suggest that more cultural adaptations (e.g., providing instruction in children's first languages, or hiring bilingual or bicultural staff) could be implemented to provide early intervention appropriate to the needs of culturally diverse children and families, especially in the areas of policy, outreach, and the assessment of families' level of acculturation. There seems to be no relationship between the total percentage of culturally diverse children served and the number and frequency of programmatic adaptations made, although characteristics of the families and staff, and the type of early intervention program seemed to affect the provision of culturally competent service. It is hoped that the results of this study will enhance the services provided by early intervention programs and staff to culturally diverse children and families, and will stimulate further research in the area of culturally competent early intervention. As the cultural face of Canada continues to change, there are increasing challenges to service providers, but also increasing benefits, as reflected in the following comment: "We find working with people from different cultures (who may have differing perspectives, beliefs, values, etc.) enhances our programming, and provides opportunities for staff and clients to interact in the culturally diverse setting in which we live."

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Appendix A
Cultural Diversity in Early Intervention Questionnaire

The purpose of this study is to determine the adaptations early intervention programs in Alberta are making, to meet the needs of culturally diverse children and families. Your participation will further the provision of culturally sensitive early intervention programs. Your participation is purely voluntary and involves the filling out of the following questionnaire. Your responses will be kept strictly confidential. In any report of the results, names, locations of programs, and all identifying characteristics will be deleted.

You may withdraw from this study at any point. If you decide to withdraw after your completed questionnaire has been turned in, please contact one of the people listed below, and your responses will be deleted from our data file and your questionnaire will be destroyed.

Following the study, programs with respondents completing the questionnaire will be sent a handbook outlining recommendations for providing culturally sensitive early intervention services, as well as a list of references relevant to meeting the needs of culturally diverse children and their families.

If you have any questions or concerns about your involvement in the study, please do not hesitate to contact one of the persons listed below.

Thank you for your consideration,

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I have read the above information and understand that my participation in the study is voluntary, that I may withdraw at any point, and that my responses will be kept confidential. I consent to participation in this study.

Signed ______________________ Date ______________________

Demographic Information

Name of program ______________________

Address ______________________

Position of person answering the questionnaire

____

1. Is your program (circle one)
   a) home-based
   b) centre-based
   c) both home and centre-based?
2. What is the age range of the children in your program? ______________________
3. Does your program serve children with disabilities? If yes, what type(s) of disability?

   ____

4. How many children under age 6 are currently involved in your program? _______________

5. Please indicate the number of children (under age 6) from each of the following diverse cultural or linguistic groups involved in your program, in each of the following categories (i.e., put a number in each of the applicable spaces).

	Total number of children from this cultural background	Number of children whose family has been in Canada less than 5 years	Number of children whose family usually speaks a language other than English	Number of children whose family has basic beliefs and practices different from mainstream Canadian culture*
Example: Martian	13	8	5	10
a) **East Asian** (China, Japan, Korea...)				
b) **Southeast Asian** (Vietnam, Laos, Cambodia, Thailand ...)				
c) **South Asian** (India, Pakistan, Nepal, Bangladesh ...)				
d) **Aboriginal/ First Nations** (Metis, Inuit, Cree ...)		Not applicable		
e) **European** (France, Portugal, Germany, Bulgaria, Greece, Britain...)				
f) **Middle Eastern** (Iran, Turkey, Kurdistan ...)				
g) **South or Central American** (Mexico, El Salvador, Nicaragua, Chile, Argentina, ...)				
h) **Caribbean** (Jamaica, Trinidad, Tobago, Barbados ...)				
i) **African** (Kenya, Uganda, Ghana, Chad, Zimbabwe, ...)				
j) **Other** (Please Specify) _______________				

* Note basic beliefs and practices include educational, health care, and family structure or childrearing practices and beliefs.

Program characteristics

PART A. Instruction

To be completed by programs with a centre-based component.

Programs with only a **home-based component** please go to **PART B**.

For each item, please circle the number that corresponds with how often the following considerations are used in your program's instruction of children from cultural or linguistic backgrounds different from mainstream Canadian

	Never		Occasionally		Usually	Don't Know
1. Skills and tasks unique to the child's home environment are instructed in the classroom (e.g., sitting on cushions on the floor, eating with hands or special utensils, etc.)	1	2	3	4	5	6
2. Materials commonly found in the home, but not in mainstream classrooms are used during instruction (e.g., ethnic artifacts, rugs for sitting, ethnic clothing in the house corner, etc.)	1	2	3	4	5	6
3. Materials and tasks from culturally diverse communities are incorporated in the classroom (e.g., ethnic dance or music, storytelling, preparation of ethnic foods)	1	2	3	4	5	6
4. Materials in other languages or from the cultural groups of the students, other than the mainstream, (e.g., pictures of children from other ethnic groups) are part of the classroom environment	1	2	3	4	5	6
5. Behavior that is influenced by a child's culture, that is different from mainstream culture, is accepted and respected (e.g., amount of eye contact, ways of eating or dressing, ways of dealing with disagreements, etc.)	1	2	3	4	5	6
6. Similarities and differences in children's cultural behavior are recognized and mentioned to the students	1	2	3	4	5	6
7. Instruction is provided (at least sometimes) in the child's first language	1	2	3	4	5	6

Please describe any other adaptations made or add any comments you might have regarding the nature of instruction provided by your program to children from different cultural or language groups.

Your answers are very important to us!!!

PART B. Assessment

For each item, please circle the number that corresponds with how often the following considerations are part of your program's assessment of children from different cultural or linguistic backgrounds

	Never		Occasionally		Usually	Don't Know
1. Assessment involves immediate family members in the assessment process, not only the individual child	1	2	3	4	5	6
2. Assessment involves other individuals whom the family desires to be part of the assessment process (e.g., extended family, godparents, etc.)	1	2	3	4	5	6
3. Assessment includes indicators of development (i.e., milestones) that are characteristic of the child's culture rather than of mainstream Canadian culture (e.g., weaning and self-feeding at later ages, timing or achievement of milestones may not be as important in some cultures)	1	2	3	4	5	6
4. Assessment instruments are designed or adapted specifically for the child's cultural or linguistic group	1	2	3	4	5	6
5. Assessment is carried out in an environment familiar to the child and his or her family (e.g., home vs. clinician's office)	1	2	3	4	5	6
6. Assessment is carried out in the language most commonly spoken in the family's home	1	2	3	4	5	6
7. Assessment instruments used are valid and reliable for children from the child's culture	1	2	3	4	5	6
8. Outcome measures of the child's development or progress in the program include behaviors characteristic of his/her culture (e.g., may be less emphasis on independence, and more emphasis on interdependence within the family)	1	2	3	4	5	6
9. The assessment process is adapted or altered for children from diverse cultural backgrounds (e.g., more observation, different instruments, etc.)	1	2	3	4	5	6

Please list all assessment instruments (e.g., intelligence tests, developmental scales) used by your program. Put a star beside all that are used with children from diverse cultural backgrounds. Also describe other adaptations made for the assessment of culturally diverse children.

Please give any additional comments about the assessment process with culturally diverse children and families.

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PART C. Program staff

Please write the appropriate number (or don't know) in the blanks.

How many of the program staff are involved in direct service to families and children? ________

How many staff involved in direct service to families and children fulfill the following:

a) belong to the same cultural or linguistic group as the culturally diverse children being served

____

b) are culturally literate

- have had experience/involvement in other cultures (e.g., have worked or traveled overseas, have been involved in a cultural exchange, have lived or worked with aboriginal people, etc.)

  ____

- can speak languages other than English ________________
- have had training in cross cultural effectiveness to increase their
  - i) awareness of their own cultural values, beliefs and practices __________
  - ii) awareness of the values, beliefs and practices of other cultures (e.g., studied anthropology) _________

For each of the following items, please circle either yes or no, as appropriate.

Does your program

1. provide the staff with training in how to interact with people from other cultures (cross cultural communication or effectiveness)?	yes	no
2. offer the staff incentives to learn another language or about other cultures?	yes	no
3. hire staff that are bilingual or bicultural?	yes	no

Does your program

4. involve members of the same cultural community as culturally diverse children in the program
   a) as paraprofessionals on the staff team? yes no
   b) as program advisers? yes no
5. involve culturally diverse parents in the staff selection process? yes no
6. involve translators when working with culturally diverse families? yes no
   a) who are familiar with early intervention practices? yes no
   b) who are familiar with the family involved? yes no
   c) who are familiar with the families' culture(s) yes no
7. encourage staff to collect the following information?
   a) description of a family's cultural or linguistic group (including belief systems and history)? yes no
   b) material on the social structure of the cultural community? (resources, organizations, informal support networks) yes no

Please give any additional comments about your program's staff who work with culturally diverse children and families.

PART D. Policy

For each of the following items please circle yes or no, as appropriate

1. Does your program have written in its policy a mandate to serve culturally or linguistically diverse children and families? yes no
2. If yes,
   Are staff aware of this policy? yes no
   Are members of the diverse cultural community (e.g., parents and community leaders) aware of this policy? yes no

Please give any additional comments about your program's policy regarding culturally diverse children and families.

PART E. Outreach

For each of the following items please circle yes or no, as appropriate

1. Are informational materials about your program available in the native languages of the families you are most likely to serve? yes no
2. If materials are available in other languages besides English were they prepared by a native speaker of that language? (if not, leave answer blank and go to question 3) yes no
3. Are community leaders from different cultural or language groups informed about the early intervention services available to the members of their community? yes no
4. Has your program conducted any public awareness campaigns directed at a specific cultural or language group? yes no
5. Is your program planning any public awareness campaigns directed at a specific cultural or language group? yes no
6. Is information about your program available in other than written form (e.g., videos, public service announcements)? yes no

Please give any additional comments about your program's outreach efforts to culturally diverse children and families.

You're almost finished!!

Considerations for involvement with culturally diverse families

PART A. Family Involvement

For each of the following items please circle the number that best describes how often your program does the following.

	Never	Occasionally			Usually	Don't Know/ Not Applicable
Provides services to the family in their first language	1	2	3	4	5	6
a) via bilingual staff	1	2	3	4	5	6
b) via a paraprofessional from the family's culture	1	2	3	4	5	6
c) via a friend or relative of the family	1	2	3	4	5	6

Please give any additional comments about the involvement of culturally diverse families in your program.

____

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PART B. Cross Cultural Differences

Culture may influence a number of areas involved in early intervention. For each of the following items please circle the number that best indicates how often staff members consider the perspective of culturally diverse families in the following areas.

	Never	Occasionally			Usually	Don't Know/ Not Applicable
◆ interpretation of what a disability is	1	2	3	4	5	6
◆ interpretation of causes of disability	1	2	3	4	5	6
◆ concepts of family structure and role identity	1	2	3	4	5	6
◆ styles of parenting or parent-child interaction	1	2	3	4	5	6
◆ views of children and childrearing	1	2	3	4	5	6
◆ goals of education	1	2	3	4	5	6
◆ styles of communication and social interaction	1	2	3	4	5	6
◆ expectations of children's behavior	1	2	3	4	5	6
◆ preferred treatment for health problems	1	2	3	4	5	6

	Never	Occasionally			Usually	Don't Know/ Not Applicable
◆ preferred intervention for disability	1	2	3	4	5	6
◆ views of change and intervention	1	2	3	4	5	6
◆ views of professional's role	1	2	3	4	5	6
◆ sense of time	1	2	3	4	5	6
◆ willingness to seek help	1	2	3	4	5	6
◆ structures for seeking assistance	1	2	3	4	5	6
How often do program staff discuss with a family from a different culture, the family's values, beliefs or practices in the above areas?	1	2	3	4	5	6

Please circle the number indicating how often your perspective (or the perspective of other staff members) in the following areas has differed from the perspective of culturally diverse families

	Never	Occasionally			Usually	Don't Know/ Not Applicable
◆ interpretation of what a disability is	1	2	3	4	5	6
◆ interpretation of causes of disability	1	2	3	4	5	6
◆ concepts of family structure and role identity	1	2	3	4	5	6
◆ styles of parenting or parent-child interaction	1	2	3	4	5	6
◆ views of children and childrearing	1	2	3	4	5	6
◆ goals of education	1	2	3	4	5	6
◆ styles of communication and social interaction	1	2	3	4	5	6
◆ expectations of children's behavior	1	2	3	4	5	6
◆ preferred treatment for health problems	1	2	3	4	5	6
◆ preferred intervention for disability	1	2	3	4	5	6
◆ views of change and intervention	1	2	3	4	5	6
◆ views of professional's role	1	2	3	4	5	6
◆ sense of time	1	2	3	4	5	6
◆ willingness to seek help	1	2	3	4	5	6
◆ structures for seeking assistance	1	2	3	4	5	6

Please give any additional comments about the consideration of, or differences in perspectives with culturally diverse families in your program.

PART C. Acculturation

The beliefs and values of culturally diverse families fall on a continuum of acculturation. Some families adhere strictly to traditional cultural values, while other families readily adopt the values of mainstream Canadians. Most families fall somewhere in between. A family's level of acculturation will affect their interactions with program staff.

Please circle the number best indicating :	Never		Occasionally		Usually	Don't Know/ Not Applicable
How often does your program assess the level of acculturation of culturally diverse families?	1	2	3	4	5	6

If the number circled above is 2, 3, 4, or 5, please describe how the level of acculturation is assessed.

Please circle the letter of the characteristics or factors that your program uses as indicators of potential cultural differences.

a) speak different language

b) family identifies different cultural affiliation

c) difference in appearance (clothing, skin color)

d) other (Please describe) ____________________

Thanks for your responses!!

Additional Comments

The following section is optional. Your further comments, however would be greatly appreciated.

Other than what has been mentioned above, are there other efforts that your program has made to better reach and serve children and families from culturally diverse groups?

What recommendations would you make to other early intervention programs to be more effective in their interactions with culturally diverse children and families?

Thank you for taking the time to complete this questionnaire. Your responses are highly valued